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Table 1

Dollar exchange rates

	Nov 17, 1986*	Percent change in dollar from Feb 25, 1985	Percent change in dollar from 1980 average
Japan	163	—38	—28
Canada	1.39	—1	18
Germany	2.01	—42	11
France	6.59	—38	56
United Kingdom	1.43	—26	63
Italy	1393	—35	63
Brazil	14.10	257	26504
Mexico	857	323	3634
Korea	864	2.5	42
Taiwan	36.30	—8	1
Hong Kong	7.80	0	57

*Units per dollar, except dollars per pound for the United Kingdom.

The dollar's decline: mission accomplished?

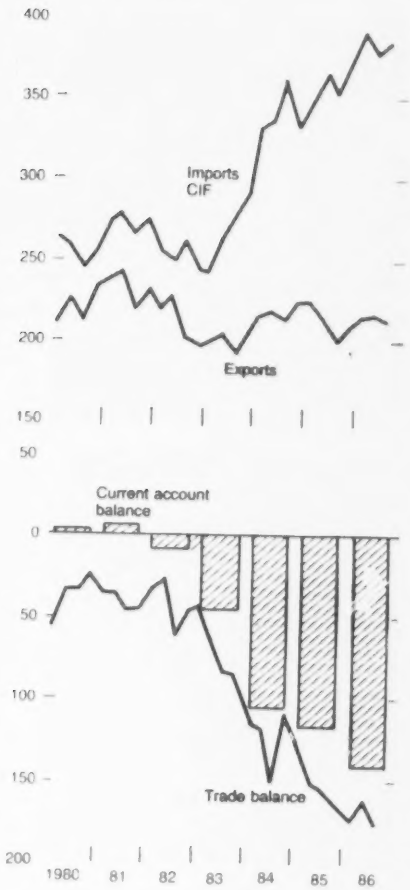
Having retraced part of its late-October run-up in the exchange markets, the dollar in mid-November stands 38% lower against the yen and 42% lower against the mark than at its zenith in early 1985 (see Table 1). The scale and speed of this dollar decline is unmatched in major currency experience since World War II. Its effects are slowly beginning to show in Japanese and German trade volumes. In January-October, Japan's export volume slipped marginally below year-earlier levels, but its import volume, excluding gold, rose 6%. In January-September, Germany's exports still were up minimally in volume terms, but its imports increased about 5%, including substantially increased purchases from Japan consistent with the newfound attractions of the German market for Japanese exporters. Even so, both Japan and Germany are seeing their overall trade surpluses continue to widen in dollar terms.

Narrowing of the U.S. trade deficit likewise is both modest and slow, whether judged in relation to the overall figures (see Chart 1) or the key bilateral sensitivities. Although the August and September figures came in well below the exceptionally high figure for July, the cumulative trade deficit for the first nine months of 1986 reached $170 billion at an annual rate on the CIF valuation (as initially reported), substantially exceeding the $140 billion reported at the same point in 1985. Bilateral trade with Japan alone has accounted for about one-third of this year's red ink. Total U.S. exports showed no gain, either in volume or value, during the first nine months of this year over the same months of 1985. But total U.S. import volume surged almost 11% year-on-year and, in value terms, the increase in non-oil imports heavily outweighed the drop in the petroleum import bill. Import volume appears to have run somewhat higher in the third quarter than in the second. Thus there is no definite evidence that the benign phase of the "J-curve" has arrived. Still, experience suggests that it will shortly come into play. For 1987 as a whole, it seems a fair bet that the deficit should narrow modestly to about $140 billion, compared with some $165 billion in 1986 on the "revised statistical month" basis of reporting. The trade adjustment process will remain far from complete, remembering that the surplus on services trade is likely to evaporate. Thus in 1987 the U.S. current account is

Chart 1

*U.S. trade and current account balances**

billions of dollars



*Trade is FAS CIF basis, annual rates
1986 current account is projected

projected to be in deficit by $140 billion — roughly the same as in 1986 — while Japan and Germany may still be in surplus by $63 billion and $24 billion, respectively.

A continuing outsized trade deficit waves a veritable red flag to U.S. protectionists, of both political parties. Most appraisals of recent U.S. economic performance lament the trade deficit's drag on growth, profits, and employment. In the first three quarters of 1986, when U.S. real GNP was up just 2.7% from the like period of 1985, about one-third of the 4.1% rise in domestic demand "leaked" abroad via trade deterioration to the benefit of foreign, rather than U.S., producers. It is widely asserted that, without reversal of this leakage, there can be little hope of stronger GNP growth in 1987.

Disappointment with the limited benefits of dollar depreciation so far has spawned a proliferation of novel exchange rate indices. These purport to show that the weakness of Canadian and developing-country currencies militates against major U.S. trade improvement. Unfortunately, the proliferation of indices has spread more confusion than clarity since, as the second article in this publication points out, the indices discerning minimal depreciation of the dollar are prone to misinterpretation as measures of U.S. competitiveness.

A more constructive debate has been in progress over the past year and a half concerning the global mix of economic policies and burden-sharing most conducive to U.S. trade improvement and the wider health of the world economy. In late September the debate developed into open quarrel among the major industrial countries represented in the Group of Five (G-5), with Germany and Japan resisting both further appreciations of their currencies as a corrective for world trade problems and U.S. pressures for interest rate cuts as a spur to economic growth. German officials took satisfaction in the recent strong growth of their own economy and insisted that the dollar, by then hovering close to the DM2.00 level, had reached an appropriate level against the mark.

Japanese officials held much the same view of the dollar-yen rate, particularly as the yen climbed toward the Y150 level. By the end of October, amid broadening signs of trouble in the domestic economy, the Bank of Japan cut its discount rate by a largely token half-percentage point. A joint U.S.-Japan statement was issued that appeared to imply mutual satisfaction with the prevailing yen rate. But no undertakings were made concerning exchange market intervention and the depth and duration of commitment to yen stabilization remains to be seen.

Trade balance objectives remain in conflict. Officials have offered no convincing evidence that dollar correction has gone far enough against the yen, still less against the mark, to yield adequate U.S. trade improvement. Claims that the dollar is about right at today's levels should find little comfort in the prospective decline in the trade deficit by 1988 to the $100-$125 billion range, CIF valuation. Even with the help of a plausible degree of dollar depreciation against the currencies of the Asian NICs, the trade deficit would remain too high.

The U.S. Administration has not stated its own objectives explicitly, other than for a much reduced U.S. trade deficit — below, say, $100 billion a year — to boost domestic growth and to help defuse protectionist pressures. Holding the view that the United States should eventually resume its former status as a net exporter of capital, some analysts believe that further substantial

Table 2

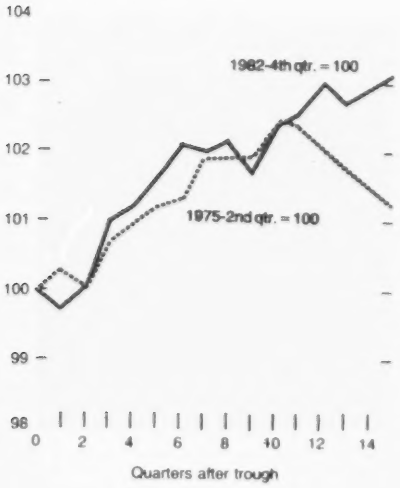
Volume of exports and imports

percent change 1980-1985

	Exports	Imports
United States	—15	45
Japan	42	9
Canada	39	23
Western Europe	22	12
Germany	27	9
France	12	5
United Kingdom	19	26
Italy	27	10
Brazil	59	—40
Mexico	55	—22
Korea	81	55
Taiwan	64	—8
Hong Kong	35	46

Chart 2

U.S. domestic demand ratio to GNP



dollar depreciation — perhaps by as much as 25% — will ultimately be needed against the stronger currencies to return the United States to the preferred status.

Of course, this is neither a practical nor a vital objective for the United States in the immediate future. In most situations of major external imbalance, it is best to press trade adjustment forward with all possible speed. That is the way to minimize the costly legacy of cumulative imbalance. However, in the case of the United States, forcing a return to trade balance within too short a time could throw a wrench into the world economy comparable to the oil shocks of the 1970s. A more reasonable target might be to reduce the U.S. trade deficit to about $50 billion well before the end of the decade.

Meeting this less ambitious, but still challenging, target would reduce risk to the world economy yet greatly curtail the present U.S. call on foreign savings. It also would stabilize quickly the U.S. net foreign debt position, whether gauged in relation to U.S. GNP or exports. Most important, it would lessen the danger to confidence in the U.S. economy posed by rapid buildup of foreign liabilities. However, neither the $50 billion U.S. trade target nor a strong world economy lies within grasp through present exchange rates and government policies. The dollar will have to fall further, the United States attack its budget problems more forcefully, and surplus countries adopt more expansive domestic policies to reach a satisfactory outcome. The coming year should bring a window of opportunity, once next January's elections are over in Germany and before the buildup to the 1988 U.S. elections distracts policymakers' attention.

Dimensions of the trade problem

Whatever the disagreement on the dollar, there is virtual unanimity that the U.S. trade deficit is a drain on the domestic economy and a major challenge for the world at large. The U.S. merchandise deficit of less than $40 billion, or about 1.5% of GNP, in the late 1970s and early 1980s reached $149 billion in 1985 and escalated to an annual rate of $170 billion, or 4% of U.S. GNP, during the first nine months of this year ($162 billion on the basis of eight months' revised data plus the unrevised September figure). The deficit reflects not only stagnation in exports but also huge increases in domestic demand, and therefore in imports, following the late-1982 recovery. The cumulative 45% growth of U.S. import volume from 1980 through 1985 eclipsed the import growth of virtually all other major countries — especially if compared with the single-figure gains of Japan, France, and Germany (see Table 2). U.S. import growth in 1986 has again outpaced that of other industrial countries.

It is not unusual for U.S. domestic demand to grow more rapidly than GNP in the initial stages of an economic recovery. This was true, for example, of the recovery beginning in 1975 (see Chart 2). However, whereas earlier recoveries started from a position of U.S. trade surplus, the current recovery began from one of sizable trade deficit, traceable in part to the appreciation of the dollar in the early 1980s. More important, the trade deficit has continued to grow as the U.S. recovery has matured, instead of shrinking as on previous occasions. U.S. non-oil imports have actually behaved in a more or less normal cyclical fashion (see Chart 3). The big difference lies in U.S. export performance, which has been handicapped by both the protracted strength of

Chart 3

U.S. non-oil imports ratio to GNP

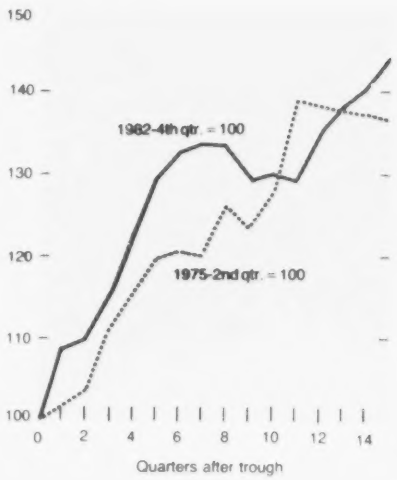


Table 3

U.S. bilateral trade balances

FAS/CIF valuation
billions of dollars

	1980	1983	1986*	Change 1980-1986*
Japan	-12.2	-21.7	-57.4	-45.2
Canada	-6.6	-14.3	-23.7	-17.1
Western Europe	18.6	-0.4	-33.7	-52.3
Germany	-1.3	-4.5	-15.7	-14.4
France	1.9	-0.3	-3.4	-5.3
United Kingdom	2.5	-2.3	-4.6	-7.1
Italy	0.8	-1.9	-6.7	-7.5
Netherlands	6.6	4.6	3.0	-3.6
Spain	2.0	1.2	-0.4	-2.4
Latin America	4.8	-14.7	-14.3	-19.1
Argentina	1.8	0.0	-0.1	-1.9
Brazil	0.3	-2.8	-3.7	-4.1
Mexico	2.3	-7.9	-5.2	-7.5
*OPEC***	-31.8	-2.1	-4.7	27.1
Asia excluding Japan	-14.5	-11.5	-37.1	-22.6
Korea	0.3	-1.7	-7.0	-7.3
Taiwan	-3.0	-7.4	-15.6	-12.6
Hong Kong	0.3	-1.7	-7.0	-7.3
Total	-36.4	-69.4	-170.5	-134.1

*January-September at an annual rate, not seasonally adjusted.
**Excluding Ecuador, Indonesia, and Venezuela.

the dollar and the failure of foreign economies to pick up the baton for world growth.

Since the beginning of this decade, U.S. trade balance deterioration has occurred vis-à-vis virtually all the nation's trading partners (see Table 3). Much recent attention has centered on the $17 billion deterioration in the U.S. trade balance with Canada,* the $19 billion deterioration vis-à-vis Latin America, and the still greater $27 billion combined deterioration in the U.S. trade position with Hong Kong, Korea, and Taiwan. The attention to Canada, Latin America, and those Asian NICs is understandable, given that they account for 47% of all U.S. trade — a somewhat higher percentage than do Western Europe and Japan. Yet it is with Europe and Japan that the lion's share — some 73% — of the overall U.S. trade deterioration has occurred. Whereas in 1980 the United States recorded a $6 billion surplus with Europe and Japan combined, U.S. trade with those two areas has plunged to an annual-rate deficit of $91 billion so far in 1986.

Most principal U.S. trade sectors display ongoing deterioration in both nominal and volume terms. Since 1980 the *manufactures* trade balance has shifted from a customs-value surplus of $19 billion to an annual-rate deficit of $132 billion so far this year. Manufactures exports have remained unchanged in nominal terms, at roughly $145 billion. Foreign markets stepped up their manufactures imports from all sources by an average of 22% in volume terms, but U.S. exporters' manufactures sales fell 15%, signifying a major loss of global market share. U.S. manufactures imports have more than doubled to $278 billion, with large-scale increases virtually across the board (see Table 4). Even automobile imports, supposedly limited by Japan's voluntary export restraints, have gone up sharply, partly through the workings of the U.S.-Canadian auto arrangement.

U.S. manufacturing has borne the brunt of stepped-up import penetration. Nonpetroleum import volume — mostly manufactured goods — was a full 74% higher by September 1986 than in 1980. Imports of capital goods, excluding automobiles, soared 123% in volume terms. In the initial stages of the recovery, domestic manufacturing output rose strongly despite rapid import growth. During the past two years, the import growth has continued but the domestic sector has managed little further expansion. Its output has risen under 4% since August 1984 and its employment count has fallen some 2%.

The near-vanishing of the U.S. surplus in *agricultural* trade (see Table 5) has occasioned considerable anguish. At the beginning of the decade, agriculture contributed a surplus of $24 billion to the U.S. trade accounts and the sector was cited as a leading exemplar of U.S. comparative and competitive advantage. In fact, farm exports topped out at $44 billion in 1981 and have never accounted for as much as one-fifth of total export earnings. Still, despite the capabilities of efficient third-world rivals, the comparative U.S. advantage remains in many farm products today, if in reduced degree. But the U.S. competitive advantage has been damaged in world markets by the protectionism and subsidy practices of other industrial countries, whose overproduction and price-depressing consequences are only partly offset by U.S. subsidies. U.S. agricultural exports have therefore plum-

*It may be noted that Canadian trade data, which annual reconciliations usually determine to be more reliable, indicate a bilateral trend substantially less adverse to the United States. Whereas U.S. data show a continuing deterioration this year, the Canadian figures suggest a lessening of the red ink.

Table 4

U.S. manufactures trade

FAS/customs valuation, subcategories are from the end-use classification billions of dollars

	1980	1983	1986*
Balance	19	—31	—132
Exports	144	132	147
Automobiles	16	17	22
Consumer goods	16	13	14
Capital goods	73	67	76
Imports	125	163	278
Automobiles	27	41	77
Consumer goods	34	45	76
Capital goods	30	41	76

*January-September at an annual rate, not seasonally adjusted

Table 5

U.S. agricultural trade

FAS/customs valuation billions of dollars

	1980	1983	1986*
Balance	23.8	19.6	3.2
Exports	41.3	36.1	24.7
Wheat	6.6	6.5	3.4
Corn	8.6	6.5	2.7
Soybeans	5.9	5.9	3.9
Other	20.2	17.2	14.7
Imports	17.4	16.5	21.5
Green coffee, cocoa beans, and sugar	6.3	4.0	5.7
Vegetables and fruit	2.0	2.9	4.4
Fish	2.6	3.6	4.6
Other	6.5	6.0	6.9

*January-September at an annual rate, not seasonally adjusted.

meted 40% in dollar value. Amid the now-chronic worldwide surplus of agricultural commodities, it is difficult to envisage a substantial improvement in U.S. trade performance in this field until major steps are taken to implement structural reform of the farm sectors of industrial countries generally. That will be a long-term process.

Among principal product sectors, only U.S. *petroleum* trade exhibits substantial improvement this year — and, at that, only in current dollar terms now that import volume is swiftly rising: domestic consumption and substitution in favor of oil have turned upward and domestic production is falling away in response to this year's steep drop in oil prices. Further boosted by a sharp turnaround in inventories, U.S. net oil import volume was up by 1.5 million bpd, or 30%, during the first nine months of 1986 over the like period of 1985. If oil prices remain in the $13-$18 per barrel range, U.S. oil usage may well climb 1.5% per annum or more for some years to come and domestic oil production continue to slip steadily. By the end of this decade, net oil imports could once again supply over 40% of domestic use, as they did in the late 1970s. That would call for a 50% jump in the volume of imports over the 1985 level, burdening the U.S. trade deficit with an additional $17 billion reckoned at a price of $18 per barrel.

Lags, margins, and the internationalization of production

It has long been recognized that the U.S. trade deficit will be slow to mend because it stems from a host of causes besides the problems of global agriculture and U.S. oil import dependence. In no particular order, they include the run-up in the dollar through 1985, the J-curve phenomenon, the much larger domestic demand increase since 1980 in the United States than abroad, the low growth of LDCs and their lack of financial resources, the NICs' penetration of the U.S. consumer goods market, and the overwhelmingly domestic sales orientation of U.S. industry coupled with poor productivity performance. Economists may differ on the relative importance of these and other causes but all agree that U.S. trade adjustment will take considerable time. Unfortunately, the economists' lag can easily turn into the politicians' nightmare.

Since its peak in February 1985, the dollar has come down by 25% in *real* effective terms according to Morgan's index of its inflation-adjusted value relative to 15 other industrial-country currencies. As discussed in the next article, Morgan's broad measure of the dollar's real effective rate, vis-à-vis the currencies of 40 U.S. trade partners that include 22 LDCs, estimates an average decline of 20% since the 1985 peak. Both measures of the dollar's real rate now are close to their average level during 1980-82, the base period on which the Morgan indices are reported, but stand 9%-15% higher than in 1980. Even so, on either measure of the effective rate, the dollar's decline has been substantial during the past twenty months and it might have been expected that the benefits for the U.S. trade balance would be plainly visible by now.

One mechanism by which dollar depreciation trims the trade deficit is by raising import prices relative to those of domestically produced goods and exports. To date, the observed increases in the relative price of U.S. imports have not been remotely of the magnitude suggested by the dollar's decline in real effective terms. In part, the disparity can be traced to foreigners' tenacious

defense of U.S. market share at the expense of their profit margins. Loosely, it may be said that profit margin decisions so far have subjected U.S. consumers and businesses to price increases averaging no more than about 6% on consumer goods imports, excluding autos, and 7% on nonauto capital goods versus the dollar's 21%-26% real effective exchange rate decline. The modest increase in U.S. import prices in dollar terms since 1985 is consistent with the smaller-than-expected fall in the relative price of imports when the dollar was rising.* Exporters to the United States did not lower their prices as much as the higher dollar would have permitted earlier in the decade, but instead enjoyed ballooning profits even while building rapid gains in market share. For that very reason, had the dollar held its peak levels of early 1985, it must be presumed that the U.S. trade deficit would have widened much more than it has in 1986.

With the dollar now more realistically valued, foreign exporters' profit margins are reverting to more normal levels. Indeed, it is unlikely that any great proportion of further declines in the dollar could be absorbed by either the supplier firms or their U.S. distributors, implying more complete pass-through of dollar weakness into final selling prices on the U.S. market from now on. Once again, however, lags are of the essence. At least for a time during a period of pervasive excess capacity worldwide and an uncertain economic outlook, it may be quite rational for foreign exporters to maintain or boost their U.S. sales at little or no profit.

Several adjustment strategies may be available to exporters from a country, such as Japan, whose real exchange rate rises. First, they may make rigorous efforts to boost home-base productivity and cut costs generally in order to restore margins on U.S. sales without raising dollar selling prices. Sometimes the cost cuts may even extend to nominal wages. Second, they may switch production to lower-cost locations, such as Taiwan, that they judge less affected by upward currency pressure yet able to produce goods of a quality salable in the United States. Third, they may invest in U.S. production facilities, expecting either to achieve competitive cost levels in due course or to insulate their U.S. sales from protectionist interference. Fourth, they may choose eventually to raise their U.S. selling prices to restore profit margins to acceptable levels, taking whatever loss of market share this may ultimately entail and hoping to make it up in their home market or elsewhere in the world.

Such strategies were pursued by U.S. firms while the dollar was on its uptrend, contributing to the much-remarked phenomena of foreign "outsourcing" and production internationalization. Now that the dollar has come down, many Japanese firms, and some in Europe too, are having to follow along somewhat similar lines for profitable survival. For their part, having discovered the advantages, U.S. producers and purchasing agents are unlikely to abandon these strategies, although U.S. locations should appear more attractive than before. In all, the instability of exchange rates during the past fifteen years is intensifying the internationalization of production. Currency instability renders uncertain the profitability of any single production base.

The upshot for the U.S. trade balance should be that the dollar's depreciation against the yen and Euro-

*This phenomenon is not new. Divergence between trends in the dollar and relative import-export prices occurred in the 1970s as well, but the differences were much smaller during that period, as also were the changes in the real value of the dollar.

pean currencies will spur switching of product sourcing away from Japan and Europe toward facilities in the NICs and others in the United States, some of which will surely be developed under foreign ownership or joint ventures with U.S. firms. Similarly, the profitability of U.S. exporters from U.S. facilities now is on the mend. But it remains to be seen how actively or successfully U.S. firms will exploit the new opportunities to build back domestic market share and develop sales abroad.

Most likely, the U.S. trade deficit will be slow to heal, absent a surprisingly favorable turn in world developments or a further fall in the dollar of significant magnitude. Many U.S. firms are wrestling with quality problems, sluggish labor productivity, inadequate profitability in relation to capital costs, and an eroding technological lead — where this has not vanished already. These shortcomings cannot be quickly redressed. Moreover, beyond the level of the firm, there are basic deficiencies in existing U.S. approaches to the broad structural aspects of competitiveness, such as research and development, education, human resource management, and the promotion of world market orientation. Extensive recommendations on these matters, recognizing their inevitable complexity, were put forward in the 1985 report* of the President's Commission on Industrial Competitiveness. Until recently the Reagan Administration has been slow to pursue many of the commission's key recommendations, despite their long-term relevance to the strengthening of U.S. competitiveness. Those recommendations may be difficult to implement and slow to bear fruit, but their eventual payoff should be more rewarding than reliance on laissez-faire and dollar depreciation.

U.S. growth and trade adjustment

When unsustainable external payments imbalances call for correction, deficit countries customarily take on the primary burden of adjustment. The United States can be no exception, even though major adjustment on the part of the world's largest economy must inevitably have major consequences for economic policies and performance worldwide.

The U.S. current account deficit now is running on the order of 3½% of GNP and the implications of chronic U.S. dependence on capital imports cannot be ignored indefinitely. At current exchange rates and on present readings of the world economic outlook, the U.S. net foreign debt could exceed $800 billion — double the current level of annual U.S. goods and services exports — within just four years. To pay, rather than borrow, the interest on this foreign debt, the United States one day will have to earn surpluses on its trade in goods and noninterest services — just as Latin America is doing right now.

Other countries facing a comparable adjustment challenge have often found the process severely disruptive of domestic growth and price stability. U.S. adjustment likewise poses significant risks. These can be mitigated, but only in the longer term, through structural efforts to raise U.S. competitiveness. More immediately, the pressing issues primarily concern macroeconomic demand management, where the policy options are fraught with uncertainty in their practical effects.

Most U.S. analysts believe that

Global Competition — The New Reality, U.S. Government Printing Office, Washington, D.C., 1985. Senior officers of leading U.S. industrial corporations, many active in nigh technology, formed the majority of the thirty-member commission, which was chaired by John A. Young, President and CEO of Hewlett-Packard Company.

reduction of the U.S. trade deficit will boost U.S. economic growth. Were it not for the leakage of domestic demand through the trade deficit over the past three years, it is said, GNP growth would have been stronger than has actually resulted. This claim, "obvious" though it may appear, is open to question.

First, its converse — that countries with rising trade surpluses should experience increased overall growth — is belied by the substandard performances of Japan and Germany during the cyclical upturn since 1982, not least by reason of their restrictive macroeconomic policies. Second, when Britain and Italy moved to correct trade deficits in the 1970s, or Latin America moved likewise in the present decade, adjustment typically triggered recession, not enhanced growth. Third, in the U.S. case, the rise in the trade deficit since the 1981-82 recession has permitted a more rapid increase in domestic demand than otherwise could have occurred without driving up interest rates and inflation. Both domestic investment and consumption were able to grow without the one "crowding out" the other. Besides, had the United States not absorbed imports from the rest of the world, its trade partners' economic recovery would have been even more in doubt and their demand for U.S. exports would have fallen away more sharply than in the actual event.

Accordingly, it is far from clear that undoing of the leakage of U.S. domestic demand through the trade deficit will boost overall U.S. growth in a major way. About the best that can be realistically expected is that reduction of the trade deficit will boost the fortunes of U.S. manufacturing and agriculture without disproportionate cost to the vastly larger services sector of the economy.

Another linkage of dubious validity is the one drawn between the U.S. trade deficit and the U.S. federal budget deficit. The linkage rests on the accounting truism that the current account deficit is the external manifestation of a shortfall in U.S. domestic savings below domestic investment, together with the observation that the budget deficit constitutes domestic dissaving. Reduction of the budget deficit — not further depreciation of the dollar — is therefore seen as the fundamental remedy for the U.S. trade imbalance.

Despite the record $221 billion federal deficit in the fiscal year ended this past September, U.S. budget analysts believe that the Congress has taken enough steps to place the deficit on a firmly declining path relative to GNP, even without literal adherence to the Gramm-Rudman prescription in the years ahead. The results are now awaited. Conceivably, as optimists sometimes suppose, fiscal stringency may inspire an upsurge of private confidence, consumption, and investment sufficient to outweigh the direct contractionary impact on aggregate demand and boost GNP growth. This has been the case in Denmark, which has now erased a general-government deficit that ran as much as 9% of GNP just four years ago and which has seen its economic growth rise well above its European neighbors'. But, at the same time, Denmark has experienced a sharp widening of its external trade and current account deficits. Thus, if U.S. fiscal contraction somehow provides a lift to U.S. growth, it is unlikely simultaneously to contribute to U.S. external adjustment. Of course, Denmark's achievement of higher growth amid fiscal tightening is practically unique among recent exercises in government austerity in Europe and Japan. Certainly, it flies in the face of the predominant wisdom that austerity curbs both economic growth and an

Table 6

Real exchange rate changes, October 1986 from 1980 average

percent

	*Overall effective**	*Bilateral, vis-à-vis dollar*
United States	15	—
Japan	27	12
Canada	—5	—8
Germany	3	—10
France	0	—12
United Kingdom	—17	—27
Italy	4	—10
Brazil	—14	—25
Mexico	—45	—44
Korea	—28	—33
Taiwan	—11	—14
Hong Kong	—6	—12

*Using Morgan's "broad" indices, described in the next article and measuring the inflation-adjusted values of the currencies against those of 18 industrial countries and 22 developing countries.

external deficit, and can be relied on to do so in the case of the United States.

Embedded in the predominant wisdom is the conviction that the dollar will weaken as a lower U.S. budget deficit curbs the domestic savings-investment imbalance and thereby cuts reliance on foreign capital inflows. There is, however, the awkward possibility — which cannot be lightly dismissed — that the dollar will instead be driven higher. Foreigners and U.S. residents alike may perceive deficit-cutting as removing a major blemish on the U.S. economy. But a higher dollar would hardly be helpful to the narrowing of the U.S. external deficit.

Given all these uncertainties about the contribution of U.S. budget deficit reduction to U.S. growth and trade adjustment, there can be but one bottom line. If the fiscal contraction on which the United States has now embarked is to lead to better performance for the U.S. economy and the world at large, it will have to be accompanied by a genuinely flexible monetary policy. Such a policy should not be beholden to wayward monetary aggregates or goals for domestic growth too high for external adjustment but, instead, will have to be geared to domestic growth more moderate than politicians might wish yet consistent with progress in narrowing the nation's trade and current account deficits. And for this latter purpose, additional dollar depreciation — assisted as necessary by monetary policy — seems likely to be a vital ingredient, whether or not induced automatically by a shrinking federal budget deficit.

Peripheral currency issues

The lack of major improvement in the U.S. trade deficit to date has inspired a number of proposals that would tinker at the edges of the problem. For example, much play has been given to the view that Latin America's debt problems are a principal source of U.S. trade distress. This is factually incorrect. The deficit with Latin America, which was $14.3 billion at an annual rate during the first nine months of this year, has narrowed from its 1984 peak of $18 billion. It now represents only 8% of the overall U.S. trade deficit. Moreover, U.S. imports from the region have fallen $3.4 billion so far this year because of lower oil purchases from Ecuador, Mexico, and Venezuela.

U.S. exports to Latin America of $27.8 billion have partly recuperated from their 1983 low of $22.6 billion, in line with the modest recovery of economic growth in the region and marking a better performance for U.S. exporters than they have achieved in other foreign markets. Granted, their sales remain far below the peak of $39 billion in 1981, which allowed the United States a bilateral surplus of over $5 billion. However, that favorable U.S. position was the counterpart of unusually high Latin American imports and was financed by unsustainably rapid debt accumulation, given that the region's export earnings were actually falling.

Adoption of more realistic exchange rate policies was a necessary ingredient in the inevitable correction (see Table 6). Maintenance of competitive exchange rates in the region remains vital today as it seeks fuller realization of its export potential through more effective product diversification and penetration of markets in Europe and Asia. In the meantime, growth of Latin America's imports from the United States will remain limited. So too will be the feasible improvement in the U.S. bilateral deficit with the

Table 7

Trade and current account balances

billions of dollars

	*Bilateral trade balance with the United States Jan-Sep 1986**	*1986 projected*	
		*Overall trade balance***	*Current account balance*
United States	—	—145	—140
Japan	57	87	82
Canada	24	8	—8
Western Europe	34	42	49
Germany	16	58	34
France	3	—3	2
United Kingdom	5	—12	—1
Italy	7	1	4
Brazil	4	12	0
Mexico	5	4	—3
Korea	7	3.5	4
Taiwan	16	14	12
Hong Kong	6	3	2

*Annual rate, as shown in U.S. FAS/CIF data, not seasonally adjusted.
**Balance of payments basis. The U.S. trade deficit of $145 billion corresponds to a deficit of $165 billion FAS/CIF.

area. However, this imbalance does not loom especially large in the panoply of U.S. trade problems.

Other proposals to tackle U.S. trade woes address the unbalanced character of the dollar's depreciation. Thus, Canada and many of the Asian NICs have seen no significant strengthening of their currencies against the dollar during the past twenty months, yet collectively they run sizable surpluses in their bilateral trade with the United States.

However, substantial Canadian dollar appreciation is not presently warranted in the perspective of that nation's overall economic and trade positions. Despite its large bilateral trade surplus with the United States, Canada cannot afford appreciation of its currency in effective terms — and therefore not by much against the dollar. First, Canada is on its way to a current account deficit of $8 billion or more this year (see Table 7), partly reflecting the collapse of oil prices. Second, because Canada is a net debtor, it has to run a sizable trade surplus merely to contain the current account deficit. Third, because Canada remits substantial dividends and interest payments, its current account surplus with the United States — reported by Canada at an annualized $1.2 billion for the first half of 1986 — is minuscule beside its bilateral trade surplus of $11.4 billion. Canada needs to cut its deficits with Japan and Europe if it is to reduce its bilateral surplus with the United States without running into an overall balance of payments constraint. In this light, any major strengthening of the currency would force Canada to take the counterproductive course of slowing its economic growth and accepting a rise in its already high unemployment rate of 9.4%.

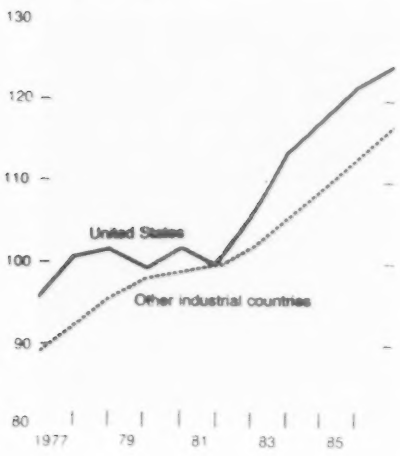
A few of the Asian NICs have greater leeway for currency appreciation against the dollar, especially in the context of a strong yen. Hong Kong is one example. Its currency has been tied to the dollar since 1983 and, in inflation-adjusted terms, stands 12% lower than on average during 1980 relative to the dollar. Hong Kong's bilateral trade with the United States is headed for a $7 billion surplus this year, of which a minor portion represents goods re-exported through the Colony from China and elsewhere. This surplus has grown substantially in recent years. Moreover, Hong Kong has been running sizable current account surpluses, which may reach $2 billion this year and which provide a prima facie case for appreciation of its currency.

Korea offers a second example of apparent currency undervaluation. From 1980 through this October, the won depreciated 42% in nominal terms against the dollar and an estimated 33% in real bilateral terms. This helped transform the Korean trade balance with the United States from a small deficit in 1980 to a surplus that could reach $7 billion this year. Because Korea runs deficits with Japan and the oil exporters, its overall trade surplus will likely be around $3.5 billion, with a fractionally higher surplus on current account. Not since 1977 has Korea been in current account surplus. The longevity of the surplus may be questioned on this occasion too, since Korea has kept a tight rein on domestic investment in recent years and major projects are in the works. However, Korean exporters are deriving major and growing competitive advantage from the yen's appreciation. This should permit not only much-needed import liberalization and stepped-up imports for domestic investment but also a boost for Korean living standards through a higher real exchange rate.

Taiwan's currency offers the truly egregious example of undervaluation. Although the new Taiwan dol-

Chart 4

Real domestic demand
1982 = 100



lar has appreciated 8% against the dollar since early 1985, it remains fractionally below its 1980 level in nominal terms and is fully 14% lower in real terms. Taiwan is likely to run a $16 billion trade surplus with the United States this year. Taiwan's overall trade surplus, estimated to exceed $14 billion, or 21% of GNP, is vastly greater than those of Japan and Germany in GNP terms. Moreover, Taiwan has been running large surpluses on current account as well. By the end of this year its foreign exchange reserves could reach $44 billion — over 60% of GNP. In absolute dollar magnitude, they are not much less than those reported by Japan and Germany, whose economies are many times the size of Taiwan's. Finally, Taiwan's fast real GNP growth — at an annual average of 6.5% since 1980 — has been largely based on the expanding external surplus. Already by 1985, that surplus had mushroomed above 11% of GNP in real terms and it continues to climb. By contrast, Taiwan's domestic consumption and real wages have grown much less than GNP, and investment has been chronically depressed. Altogether, there can be little doubt that Taiwan handily meets the most conservative criteria for fundamental disequilibrium. The facts warrant a very substantial appreciation of its currency, in conjunction with liberalization of imports and other economic controls. These steps would help nudge the economy up the technological ladder and away from its predominantly labor-intensive industrial structure. More important, from a global perspective, they are essential to correction of Taiwan's massive external imbalance.

Even so, it would be foolish to suppose that Asian NIC adjustment could contribute more than $10-$15 billion toward solution of the wider U.S. trade problem, just as it would be wrong to undermine Canada's balance of payments or the financial rehabilitation of Latin America for the sake of short-term bilateral trade gains for the United States.

Adjustment in Japan and Europe

Besides the Asian NICs, Japan and Germany will have to come to terms with their adjustment needs, both to curb excessive trade surpluses that are the counterpart of the U.S. deficit and to bolster world economic growth.

One of the main causes of the U.S. trade deficit remains the domestic demand gap that opened up in 1983 and 1984 between the United States and other industrial countries (see Chart 4). The United States relied on domestic demand to spur its economic recovery. By contrast, its trade partners relied mostly on export-led growth in the first phase of their recoveries, permitting only slow growth in domestic demand. Even though foreign domestic demand has accelerated during the past year and a half, the *cumulative* gap vis-à-vis U.S. domestic demand is narrowing only slightly and is far from being undone. Unless that occurs, the U.S. trade deficit is unlikely to be eliminated — as was clearly demonstrated in the late 1970s when success in reducing the trade deficit required a shortfall in U.S. domestic demand growth below that abroad, in addition to dollar depreciation.

U.S. officials stress the potential of stepped-up economic growth in Japan and Europe as a means to boost demand for U.S. exports without the inflationary risks of further large-scale dollar depreciation. If foreign growth could be stepped up by 1%, even conservative estimates suggest that the U.S. trade balance would gain by some $10 billion per

Table 8

Real GNP growth

annual average percent

	1985	1986	1987
United States	2.7	2.5	2.5
Japan	4.5	2.2	2.4
Canada	4.0	3.0	2.5
Germany	2.4	3.0	3.5
France	1.4	2.5	2.8
United Kingdom	3.4	2.2	2.8
Italy	2.3	3.3	3.2
Brazil	8.3	7.0	3.0
Mexico	2.7	—3.0	2.0
Korea	5.1	10	7.5
Taiwan	4.7	8.5	7.0
Hong Kong	0.8	4.5	4.5

annum. While welcome, that would not be much in the context of the $165 billion deficit expected this year. But growth acceleration would undoubtedly accomplish much for global objectives generally, notably the resumption of rising living standards and investment in developing countries.

Unfortunately, on the basis of present policies there is little reason to project any significant pickup in Japan's real GNP growth in the year ahead (see Table 8). The recent U.S.-Japan accord took note of Japan's plans for revenue-neutral tax reform. These, if and when enacted, would not constitute a fiscal boost in the conventional sense. Their payoff in faster economic growth would be realized only some years hence and on the assumption that reformed incentives succeed in boosting private-sector confidence, domestic investment, and consumption. Japan remains committed to zero long-term growth in government expenditure. The proposed supplementary budget for the current fiscal year is designed less to boost central government spending than to soften near-term cuts. And the planned increases in local spending remain hostage to fortune and bureaucracy.

As for Japan's monetary policy, the end-October cut in the discount rate manifests concern over the faltering domestic economy but is unlikely to have any major stimulative effect. For one thing, the discount rate is not a reliable guide to borrowing costs. Although the yields on benchmark bonds have come down in recent weeks, they are no lower than eight months ago and certainly represent no reduction in the very high level of real interest rates in Japan. Moreover, Japan's industrial sector is struggling to cope with a much stronger yen than most firms had envisaged a year or so ago, mandating new stringency in cost control, including labor compensation. Real income growth therefore seems unlikely to support any material further acceleration in Japan's real domestic consumption above the pace of recent quarters, nor is there much hope of a sizable increase in business investment. Finally, whatever growth comes through in Japan's domestic demand will be blunted by the slippage of net external demand that now is clearly in progress.

Germany's real GNP growth is projected to slow sharply during 1987, to about 2% fourth-quarter to fourth-quarter, notwithstanding an apparent acceleration from 3% in 1986 to 3.5% in 1987 on an annual-average reckoning. Preliminary figures for industrial production and factory orders in September, which were down from August levels, point to some weakening of economic growth during the past summer months. However, employment gains in both September and October are among the indications that both the production and orders figures for September will be revised upward, suggesting that, from the fourth quarter of 1985 through the end of this year, Germany's real GNP may yet expand roughly 4.5%.

Next year is another story. Following its acceleration in 1986, Germany's domestic demand is unlikely to speed up further in the year ahead. In real GNP, there will be a growing offset through still-surging imports and weak exports, thanks to the strength of the mark and sluggish activity in Germany's export markets. If the mark strengthens significantly further, the currently strong intentions for German business investment next year could be revised sharply downward, further paring the modest growth anticipated for the German economy as a whole.

Any significant slowing of German growth below present expecta-

tions would darken the already somber prospects facing other European countries. Britain and France have been experiencing slower-than-expected export growth this year, raising balance of payments concerns anew. Even if their exports grow more strongly in 1987, neither is likely to achieve better than 2.8% real GNP growth on an annual-average reckoning, still less any significant reduction in unemployment.

The G-5's unfinished business

Despite the dollar's 20%-25% real effective depreciation to date since its 1985 peak, standard projections do not support the notion that the U.S. trade deficit will shrink below $100 billion a year, let alone to the recommended goal of $50 billion a year this side of 1990. As noted earlier, the dollar still stands substantially higher in real terms than in 1980, on the order of 9%-15%. A pessimistic deficit prognosis is fortified by recognition of the cumulative growth gap that has opened up between the United States and other major industrial countries during the present decade, plus the litany of structural woes afflicting U.S. trade performance.

Although the November U.S. Congressional elections now are history, it remains vital for the world at large that the U.S. trade deficit recede as a domestic political issue. Many Democrats, with the sympathy of many Republicans, have long judged the Administration's record more vulnerable on the trade issue than the somewhat intangible and seemingly intractable budget issue. The House passed a trade bill embodying stiff import surcharges during the session just ended. The Administration was strongly opposed and the Senate took no action.

But the trade deficit may not play out as a partisan issue. Since the election the Administration has begun to display fresh interest in dusting off earlier recommendations for strengthening U.S. structural competitiveness, an interest shared in some particulars by many Democrats. However, there can be little doubt that the new Congress will quickly take up a variety of proposals for restriction of U.S. imports plus, quite possibly, more aggressive U.S. export policies wherever foreign practices are deemed unfair. Particularly in the event that the U.S. economy remains sluggish and intensifies the protectionist sentiment of the U.S. electorate, the possibility should not be underrated that an avowedly free-trade Administration will come to espouse punitive import legislation. It may be recalled, in this connection, that it was a Republican president who ordered the 1971 import surcharge.

The work of the G-5 to correct global imbalances through international policy coordination, whether in matters of economic growth or exchange rate relationships, therefore is far from finished. Although adjustment would be ideally pursued on all fronts at once, political realities caution that progress may be achieved more effectively one step at a time. Just now, the first U.S. priority should be to nudge Japan into further actions to deliver on the Mayekawa report's recommendation to rebase the nation's economic growth on domestic demand. Japan's adjustment will not be easy. However, once a breathing space has passed providing Japan the opportunity to buttress its domestic growth, it will be appropriate to reconsider the current official view that the yen has reached a level consistent with fundamentals. Secondarily, it can be expected that the United States will continue to press Korea, and particularly Taiwan, to let their currencies rise against the dollar.

In 1987, after the German elections, the spotlight should shift to Europe, where Germany is the key player. If its economic growth begins to slow, as most projections envisage, Germany should gradually become more open to positive steps to boost its economy. Such a boost would lessen the constraints on growth in Britain, France, and other countries in Europe burdened by heavy unemployment. Further, if Germany is to do its part in helping correct both the U.S. trade deficit and its own outsize trade surplus without provoking destructive protectionism, a significant rise in the mark-dollar rate will be required.

Bilateral inflation differentials shed instructive light on the appropriateness of the mark's present level. To restore the real bilateral price relationship for manufactured goods that existed between Germany and the United States at the time of the mark's monthly average high of the 1970s would call for the mark to rise from its actual present level to about DM1.67 to the dollar. Similar considerations for the yen point to a rate of Y139. These figures lend support to the view that the yen has moved substantially closer than the mark to a reasonable notion of "purchasing power parity" with the dollar. The mark, indeed, would seem to have a long way further to go, even before allowing for the sizable present and future inflation differential between the United States and Germany. Once the European and Japanese currencies move higher against the dollar, some moderate appreciation of the Canadian dollar also should be possible against the U.S. unit.

In sum, it is possible to discern the outlines of a G-5 understanding that would simultaneously carry the dollar lower in due course — but not precipitously nor necessarily within the next several months — boost economic growth in Japan and Europe, alleviate the trade frictions engendered by extreme U.S. bilateral imbalances, and assist correction of the overall U.S. trade and current account deficits. Achievement of these objectives will demand real commitment on the part of at least the three principal members of the G-5.

Table 9

Dollar effective exchange rate indices

	Federal Reserve Board	Morgan Traditional	Morgan Broad	Federal Reserve Bank of Dallas
Nominal, October 1986 percent changes since				
*February 1985**	—33	—25	—12	—3
1980 average	22	11	68	82
Real, October 1986 percent changes since				
*February 1985**	—	—25	—20	—
1980 average	—	9	15	—
Weights by region, in percent				
Europe	77.3	44.1	38.0	25.2
Canada	9.1	30.3	20.7	20.7
Japan	13.6	23.2	18.5	16.8
*Latin America***	—	—	10.5	14.0
*Asian NICs****	—	—	8.9	13.7
Other	—	2.4	3.4	9.6
	100.0	100.0	100.0	100.0

*On a monthly average basis the Morgan indices peaked in March 1985 in nominal terms, but in February 1985 in real terms.
**Includes other Western Hemisphere.
***Taiwan, Korea, Hong Kong, China, Singapore, Indonesia, Malaysia, and Thailand.

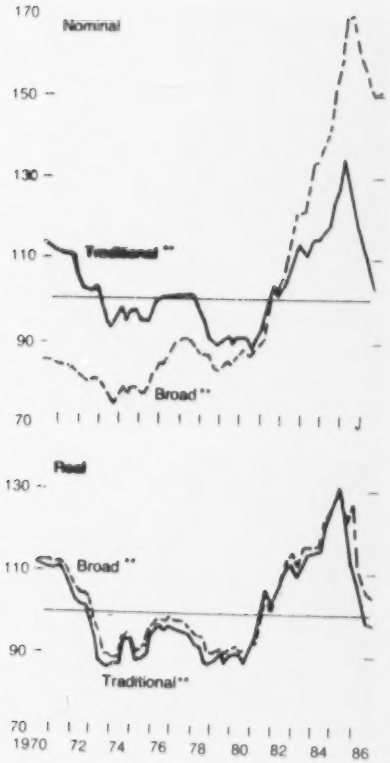
Dollar index confusion

Some assessments of the actual and prospective consequences of a lower dollar betray confusion over the extent and interpretation of the dollar's decline from its high point of February 1985. Clearly, the dollar has come down substantially — by as much as 42% — against most European currencies and the Japanese yen. But it has risen against the Canadian and Australian currencies. Striking a balance, Morgan's long-published index of the dollar's nominal trade-weighted average, or "effective," exchange rate against 15 other industrial-country currencies shows a decline of 25% through this October (see Table 9). However, the currencies of developing countries now have come under the spotlight. Hardly any of these currencies have appreciated against the dollar. Several have fallen, in some cases steeply. If the dollar effective rate calculation is broadened to include LDC currencies, the dollar's overall decline at first sight appears minimal.

Chart 5

Dollar effective exchange rates*

1980 = 100



*Traditional: dollar against currencies of 15 other industrial countries. Broad: dollar against currencies of 18 other industrial countries and 22 developing countries listed in Table 10.

**Latest plotting October.

That is the appearance conveyed by certain dollar indices that have been newly published during the last several months. Confused by the lack of agreement among the many indices now in circulation, some observers have concluded that the dollar's depreciation during the past twenty months has been token at best as a solution to U.S. trade problems. Such conclusions are unwarranted, given the findings of a broad, inflation-adjusted Morgan index for the dollar, which places its depreciation since early 1985 at a full 20%. A precursor of this index was presented in the July 1983 issue of this publication. The present article summarizes the key issues to be faced in the design of a reliable index of competitiveness. The article further re-introduces that broad index, which covers the currencies of 40 principal U.S. trade partners including 22 LDCs (see Chart 5).

Most effective rate indices for the dollar endeavor to measure the weighted-average change in U.S. competitiveness brought about by movements in exchange rates. Indices differ in their choice of currencies included in the averaging, their assignment of weights to represent the relative importance of the included currencies, and how, if at all, measures of differential inflation performance are applied to restate the nominal exchange rate indices in "real," inflation-adjusted terms.

Hitherto, the dollar exchange rate indices best known in the United States have been those published by Morgan and the Federal Reserve Board. Both have concentrated on appraising the dollar's value in terms of the currencies of other *industrial* countries, the currencies traditionally traded most actively in international markets. This bank's familiar dollar index weighs each included currency in accordance with the importance of the corresponding country in the 1980 *bilateral* pattern of U.S. trade in *manufactured goods*. The dollar's decline is substantially greater on the Federal Reserve Board index because its weights reflect *shares* in *world* trade in *all goods* rather than U.S. trade in manufactures; it therefore downplays the U.S.-Canadian relationship in favor of the yen and a subset of European currencies.

It is fair to question whether exchange rate indices limited to industrial-country currencies adequately reflect today's global trade realities. After all, whereas in 1970 U.S. trade with LDCs formed only 28% of all U.S. trade — and, on the U.S. import side, was concentrated in noncompeting primary products — the LDC share had risen to 34% by 1985 and also had come to supply 26% of all U.S. manufactures imports. Heightened awareness of these trends has inspired a number of efforts to incorporate LDC currency movements into effective rate calculations.*

Recently, but in nominal terms only, the Dallas Federal Reserve has published an exhaustive index, embracing no less than 131 currencies of countries accounting for virtually all U.S. foreign trade save that with the Soviet Union. This index finds a decline of just 3% in the dollar from its 1985 peak. In fact, a less comprehensive currency list yields much

*Inclusion of LDC currencies is a feature of a U.S. Treasury index published in its quarterly bulletin. Unfortunately, the Treasury's technical construction imparts a persistent and strong upward bias to its calculated measure of the dollar's exchange value. This Treasury index, which encompasses 46 currencies including those of major LDCs, is computed as an arithmetic weighted average relative to a base period of 1970. The Morgan indices utilize geometric weighting that has the mathematical property of holding constant the relative percentage importance of the constituent currencies regardless of the magnitude of individual currency shifts. Arithmetic weighting, by contrast, confers ever-increasing percentage weight on currencies that consistently depreciate against the dollar with the passage of time. By now, this bias has caused the broad Treasury index substantially to parallel the course of certain chronically depreciating Latin American currencies rather than those of the major U.S. trade partners. As a result, this index has risen over 150% since early 1985.

Table 10

Weights in the Morgan effective exchange rate indices for the dollar

percent

	*Traditional**	*Broad***
Canada	30.3	20.7
Japan	23.2	18.5
Germany	10.9	9.9
United Kingdom	9.2	8.2
France	5.9	5.1
Mexico	—	4.6
Italy	4.1	3.7
Taiwan	—	3.1
Belgium	3.5	2.2
Brazil	—	2.2
Korea	—	2.1
Hong Kong	—	2.0
Netherlands	3.0	2.0
Switzerland	2.8	1.8
Australia	2.4	1.7
Sweden	1.7	1.5
Spain	1.4	1.3
Venezuela	—	1.1
Argentina	—	1.0
Singapore	—	0.9
Saudi Arabia	—	0.8
Austria	0.4	0.5
Chile	—	0.5
Colombia	—	0.5
Denmark	0.6	0.4
Finland	—	0.4
India	—	0.4
Malaysia	—	0.4
Norway	0.6	0.4
Peru	—	0.4
Ireland	—	0.3
Ecuador	—	0.2
Greece	—	0.2
Indonesia	—	0.2
Kuwait	—	0.2
New Zealand	—	0.2
Philippines	—	0.2
Portugal	—	0.2
Thailand	—	0.2
Pakistan	—	0.1

*Based on 1980 direct bilateral trade in manufactures.

**Modified weights based on 1980 bilateral trade in manufactures. The element of the Morgan index representing U.S. competitiveness in the German market relates the value of the dollar to a weighted-average value of the mark and the currencies of all significant U.S. competitors, setting the weights in proportion to the shares of German and the 39 other principal industrial- and developing-country competitors in the German domestic market. Similarly constructed elements representing U.S. export competitiveness in each of 40 U.S. foreign markets then are averaged together, with weights in proportion to U.S. bilateral exports to each market, to form an overall index of U.S. export competitiveness. Finally, the broad index blends this export measure with a traditionally calculated index of U.S. import competitiveness. Mathematically, this three-step procedure can be condensed into a single-step weighted averaging, using the "modified" bilateral manufactures trade weights shown here in the case of the dollar calculation. See also *World Financial Markets*, August 1983.

the same result. Shortening of the list to, say, the currencies of the 40 countries listed in Table 10, which collectively accounted for nearly 90% of total U.S. trade in 1985, leads to a dollar exchange rate index that has declined a not dissimilar 6% from the 1985 peak. For that matter, the currency list could be slashed to the top 20 U.S. trade partners, including LDCs, and still provide much the same reading on the dollar.

Besides the choice of currencies for inclusion, several other issues must be satisfactorily resolved to obtain reliable indices of competitiveness. First is the matter of assigning weights to the included currencies. Most, but not all, of the available dollar indices draw upon the readily available data on U.S. bilateral trade in *all goods*, that is, both manufactures and primary commodities, including petroleum, for weighting purposes. This ignores not only the distortions of agricultural prices through support and subsidy programs, but also the restriction of agricultural trade by quantitative means in most significant national markets, which minimizes exchange rate influences. More important, international oil trade is characterized by pricing practices that are overwhelmingly dollar-based and that also — apart from quality, transport, and tax differentials — lack differentiation among national markets in any way relevant to issues of dollar competitiveness. Failure to exclude the large U.S. petroleum trade from the weighting of a dollar index unreasonably skews the results toward the currencies of such countries as Mexico and Venezuela — currencies that have not appreciated against the dollar. Morgan's effective exchange rate indices therefore use weights derived from data on trade in *manufactured goods alone*.

Second is the issue of precisely how weights may be derived most appropriately from the chosen trade data. The great majority of dollar indices assign fixed currency weights in proportion to the value of bilateral U.S. trade with the corresponding trading partners. Morgan's traditional index, geared to industrial-country currencies only, is no exception. Its weights, which are updated periodically, have been drawn since 1983 from data on 1980 manufactures trade. The procedure has the merit of transparency. And it recognizes that the U.S.-Canadian trade and currency relationship is of much greater significance in appraising U.S. competitiveness than, say, the U.S.-U.K. connection. The index may be viewed as a blend of two subindices: one, weighted by U.S. bilateral imports, gauges the competitiveness of foreign exporters to the United States vis-à-vis domestic producers; the other, weighted by U.S. bilateral exports, gauges the position of U.S. producers selling into foreign markets.

Direct bilateral export weights, however, do not offer an entirely satisfactory approach to measuring export competitiveness. Besides including LDC currencies, Morgan's broad effective index for the dollar measures U.S. export competitiveness using a procedure recognizing that in selling to the German domestic market, for example, German firms are not the only rivals of U.S. firms. In 1980 German producers commanded only about 75% of the German domestic market for manufactures, measured by value added in domestic manufacturing plus imports from industrial and developing countries. U.S. exporters took less than 2%, while 15% went to competitors from other EC countries, 1.5%

to Japanese rivals, and a further slice to LDC suppliers. To evaluate U.S. export competitiveness in the German domestic market appropriately, it is therefore important to assess the position of U.S. firms not just against German firms, but also against the entire range of other significant competitors, including LDCs. Morgan's broad index accomplishes this by modifying the weights attached to its constituent currencies, following the methodology summarized in the note to Table 10.

Using these modified manufactures trade weights in place of total-trade weights, but retaining the same 40 currencies as before, the dollar's average nominal depreciation since its February 1985 peak amounts to 12% — distinctly less than the 25% depreciation shown by the traditional index restricted to industrial-country currencies, but still substantial. This figure is decidedly greater than that calculated by the Dallas Federal Reserve.

The third, and by far the most significant, issue concerns the necessity to adjust for the inflation differentials between the United States and its trade partners in order to reach useful conclusions about changes in U.S. competitiveness over time. This necessity should immediately be apparent from the fact that if U.S. selling prices hold constant in dollar terms while the local-currency selling prices of the domestic firms of a U.S. trading partner happen to double, then a 50% depreciation of the partner's currency relative to the dollar leaves the U.S. competitive position unchanged, not diminished. Although inflation differentials have narrowed greatly among the industrial countries since the 1981-82 recession, they were both sizable and variable during the 1970s and could become so again in the future. Inflation in many developing countries, notably in Latin America, has long been very much higher than in industrial countries. Once these high-inflation developing-country exchange rates are included in a dollar index, a purely nominal construct loses all utility for gauging U.S. trade competitiveness.

Several possible approaches to inflation adjustment have merit. Whichever approach is taken has to be applied consistently and also should appeal to comparable price data pertaining to internationally traded goods. This latter requirement rules out the most familiar national price data — those for consumer prices or the GNP deflator — because these assign heavy and highly disparate weights to services and other items shielded from global market forces. Admittedly, the many practical problems of price data quality, comparability, and lack of timeliness cannot be wholly overcome and a degree of subjective judgment is required. For these reasons, most published exchange rate indices, whether from private or official sources, fight shy of any attempt at inflation correction. Yet "best efforts" are essential to assure reasonable accuracy of inferences concerning competitiveness.* To this end, the Morgan real effective exchange rate indices seek to correct the nominal indices for differential inflation in wholesale or producer output prices for intermediate and finished manufactures excluding food and fuel.

Until this year it has usually proved the case that, following careful inflation correction, the extension of dollar indices to take in LDC currencies makes little difference to a numerical assessment of the dollar's real exchange value. Movements in the Morgan dollar index covering industrial-country currencies alone have generally exceeded those in the broad index; as Chart 5 makes clear, the two indices typically parallel each other in direc-

*The United States and Britain publish single price indices that are judged to be of acceptable quality, coverage, and timeliness for use without modification. For most other countries, it is necessary to construct composites of selected subcomponents of overall price indices in order to attain reasonable comparability. Available subcomponents permit the exclusion of food prices, and generally fuel or energy prices also, from the overall manufactures price indices of virtually all industrial and developing countries covered in the Morgan effective exchange rate indices.

In some countries, even though the available price indices for manufactures can most often be chosen to capture output prices and exclude input prices, no adequate distinction may be possible among outputs of raw materials, intermediate goods, and finished products. On occasion, the available indices exclude exports, applying only to manufactured goods sold in the domestic market; cover imported as well as domestically produced items; include nontradable items, such as the output of local utilities or building contractors; and may or may not reflect indirect taxes. A few countries fail to compile wholesale or producer price indices, necessitating resort to components of a consumer or retail index. In all, uncomfortable compromise choices are unavoidable. Yet further difficulties arise from tardy availability of the chosen data. These lag the current date by at least a month or, exceptionally, up to eight months. The available data then must be brought forward in time, either with the aid of an inferior, but more up-to-date, proxy price index or by trend-line extrapolation.

Table 11

Dollar effective exchange rate

1980-1982=100

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Nominal against 15 other industrial-country currencies													
1970	114.2	114.2	114.1	114.1	114.1	113.0	112.9	112.4	112.2	112.4	112.3	112.2	113.2
1971	111.9	111.6	111.6	111.7	111.3	111.5	111.4	110.5	108.5	107.3	107.0	105.3	110.0
1972	104.0	102.9	102.2	102.3	102.1	101.7	102.1	102.2	102.3	102.6	102.9	103.2	102.6
1973	103.1	98.6	95.4	96.2	95.5	93.6	91.7	93.1	93.3	92.9	95.6	97.1	95.5
1974	100.8	98.6	96.5	95.2	94.4	95.5	96.3	98.0	98.5	98.0	97.4	96.5	97.2
1975	95.5	94.3	93.6	95.0	95.1	95.2	97.7	99.5	100.2	100.1	99.9	100.6	97.3
1976	100.2	99.8	100.5	101.0	101.1	101.3	100.9	100.8	100.1	100.4	101.1	101.9	100.8
1977	101.3	101.5	101.7	101.1	101.1	101.0	99.8	100.7	100.9	99.8	98.5	96.7	100.4
1978	95.7	95.6	94.7	94.4	95.2	93.5	91.2	89.3	89.5	87.4	89.5	89.8	92.2
1979	89.7	90.2	90.3	90.9	91.7	91.6	89.6	90.1	90.0	91.3	92.7	91.1	90.8
1980	90.3	91.0	93.9	94.7	90.7	88.6	88.4	89.5	88.7	88.9	91.1	92.0	90.7
1981	91.5	94.5	94.7	96.6	99.8	101.9	104.3	105.9	103.0	102.2	100.2	100.3	99.5
1982	101.8	104.9	106.7	107.9	105.9	111.1	112.3	112.5	113.3	114.9	115.0	111.3	109.8
1983	109.7	111.0	112.0	112.5	112.2	114.3	115.1	117.0	116.7	114.8	116.5	118.0	114.2
1984	119.1	117.3	115.4	116.7	119.5	120.2	124.2	124.0	127.3	128.5	126.8	129.5	122.4
1985	132.0	136.4	136.9	131.7	132.0	130.5	125.8	124.0	125.2	118.9	117.0	116.1	127.1
1986	115.1	111.2	109.0	108.1	105.8	106.5	104.0	102.3	102.2	102.1			
Real against 15 other industrial-country currencies													
1970	111.9	111.6	111.3	111.0	111.4	110.8	110.9	110.4	110.2	110.9	110.8	110.6	111.0
1971	110.4	110.5	110.5	110.8	110.5	110.9	111.1	110.5	108.3	107.0	106.6	105.0	109.4
1972	103.9	102.9	102.1	102.1	102.0	101.7	102.0	101.9	101.6	101.3	101.0	100.6	102.0
1973	100.2	95.5	92.2	93.2	92.7	90.5	87.6	88.5	88.0	87.1	89.5	89.5	91.2
1974	91.0	88.0	86.9	86.6	87.6	89.9	91.5	94.7	95.6	95.4	95.0	94.0	91.3
1975	89.8	88.8	88.2	89.3	89.4	89.5	82.7	93.4	94.0	94.3	94.3	95.1	90.7
1976	97.6	97.1	97.5	97.6	97.4	97.6	96.9	96.6	96.1	96.6	97.1	97.6	97.2
1977	96.8	96.8	97.1	96.5	96.4	96.5	95.6	96.5	97.0	96.2	94.9	93.3	96.2
1978	92.6	92.7	92.0	91.8	93.0	91.6	89.7	88.0	88.4	86.5	88.8	89.1	90.4
1979	88.9	89.5	89.6	90.4	91.0	90.7	88.7	88.9	88.7	90.4	91.7	90.2	89.9
1980	89.4	90.3	93.2	93.8	89.4	87.4	87.3	88.7	87.5	88.5	90.7	92.2	89.9
1981	92.3	95.5	95.9	98.2	101.3	103.3	106.0	107.4	104.1	103.6	101.5	101.3	100.8
1982	102.6	105.2	106.6	107.6	105.7	110.4	111.5	111.6	111.9	114.0	113.9	110.3	109.3
1983	108.5	110.2	110.9	111.1	110.7	112.6	113.6	115.4	114.8	113.3	114.7	116.2	112.7
1984	117.2	115.4	113.3	114.5	116.9	117.7	121.2	121.1	123.6	124.9	123.3	125.7	119.6
1985	128.1	132.2	132.0	126.9	127.0	125.6	121.3	119.4	119.7	114.5	112.5	111.7	122.5
1986	110.4	106.7	104.6	103.6	101.5	102.1	99.7	98.1	97.5	98.3			
Real against 18 other industrial-country and 22 developing-country currencies													
1970	112.7	112.4	112.1	111.8	112.6	112.6	112.5	112.2	111.9	112.6	112.4	112.2	112.4
1971	111.7	111.8	111.8	112.2	111.7	112.1	112.6	112.3	110.3	109.5	109.2	108.1	111.2
1972	106.6	105.7	105.0	105.1	104.6	104.9	105.1	105.1	104.7	104.3	103.9	103.5	104.9
1973	102.4	97.9	95.0	95.8	95.0	93.2	90.2	90.7	90.0	89.1	91.0	90.8	93.4
1974	91.5	88.2	87.4	87.8	88.9	91.0	92.6	95.6	96.5	96.2	95.9	95.3	92.2
1975	91.3	90.5	90.5	91.3	91.2	91.3	86.7	94.6	95.5	96.1	96.0	96.8	92.7
1976	98.8	98.2	98.4	98.5	98.3	98.5	97.6	97.1	98.4	98.8	99.2	99.1	98.5
1977	98.3	98.6	98.8	98.3	98.3	98.1	97.3	98.1	98.6	97.8	96.8	95.6	97.9
1978	94.7	94.8	94.2	94.1	95.1	93.9	92.1	90.7	90.8	89.1	91.2	91.4	92.7
1979	90.9	91.3	91.4	92.2	92.6	92.1	90.1	90.1	89.9	91.5	92.5	91.4	91.4
1980	90.8	91.5	93.7	94.0	90.1	88.3	88.1	89.2	88.1	89.1	90.8	92.1	90.5
1981	92.1	94.8	95.1	97.3	100.0	101.9	104.1	105.5	103.0	102.7	100.8	100.8	99.8
1982	102.0	104.7	107.3	107.8	106.0	109.8	110.8	113.0	113.5	114.5	114.6	112.1	109.7
1983	110.7	112.4	113.1	113.5	113.3	114.7	115.6	117.4	116.9	115.8	116.8	118.1	114.9
1984	118.7	117.1	115.8	116.7	118.8	119.1	122.0	121.9	124.1	125.2	124.0	126.2	120.8
1985	128.1	131.5	131.2	127.0	127.3	126.2	123.0	122.1	122.6	117.9	116.2	115.5	124.0
1986	114.6	111.3	109.7	109.0	107.1	107.4	105.5	104.2	103.7	104.3			

tion and timing. In other words, they have been closely correlated and, when used in econometric forecasting, have not differed significantly in their implications for the U.S. trade balance.

However, the correlation now may be weakening. Through this past October Morgan's traditional real index for the dollar, based on the currencies of 15 industrial countries that account for about two-thirds of all U.S. trade in manufactures, has fallen by 25% from its 1985 peak. The inflation-corrected broad index for the dollar, based on the currencies of 40 U.S. trade partners, including LDCs, which cover about 90% of all U.S. trade in manufactures, shows a fall of 20%. Thus although the narrow and broad indices tell much the same story — a story of substantial dollar depreciation — a potentially significant divergence has opened up between the two in 1986. This divergence warrants continued monitoring of U.S.-LDC currency relationships to assure a sound grasp of the overall U.S. competitive position.

Accordingly, starting with the present issue, the statistical appendix to this publication reports the broad real effective exchange rate index for the dollar, including LDC currencies, in addition to the traditional nominal and real indices based on the major internationally traded currencies alone. The real indices are subject to revision for recent periods as more complete price information becomes available. Historical data for the three dollar indices going back to 1970 are shown in Table 11. Similar broad real indices are shown in the appendix for the currencies of other industrial and developing countries (with the exceptions of Israel and Turkey, whose published trade data do not permit inclusion of LDC trade partners). The inflation corrections incorporate the results of a thorough recent review of the appropriateness and availability of national price data. As noted above, such review is an ongoing process. For the time being, the indices continue to be computed on the basis of 1980 trade data. Past experience has shown that substitution of more recent trade figures rarely has a major impact on the exchange rate indices. Nonetheless, when a reasonably complete international trade matrix for manufactures becomes available for 1985, the weights in the Morgan indices will be updated.

Statistical appendix

For key to data in tables see September 1986 issue.

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																	
1980		90.7	100.4	95.5	96.0	106.5	100.0	108.4	99.8	99.4	105.9	100.2	106.5	95.4	105.1	98.2	103.9
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986																	
May		105.8	88.4	150.9	66.5	86.5	114.5	82.0	84.9	107.0	92.6	109.1	73.6	115.8	98.7	89.8	82.0
June		106.5	87.6	151.1	63.2	86.5	114.6	82.0	84.5	107.1	92.6	109.2	73.2	117.1	98.9	87.8	81.8
July		104.0	87.8	158.6	56.4	86.3	115.8	82.8	82.2	107.5	92.7	110.3	74.0	120.2	99.1	87.3	81.4
August		102.3	87.0	161.7	54.2	86.4	117.6	83.7	78.8	108.1	93.4	111.7	74.0	122.7	100.4	86.7	81.0
September		102.2	87.1	160.8	55.1	86.5	118.3	83.9	77.5	108.5	93.8	112.0	73.7	122.7	100.5	86.6	81.0
October		102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
September	19	101.7	87.0	160.6	55.2	86.6	118.5	84.1	77.3	108.6	93.9	112.1	73.8	123.2	100.6	86.7	81.0
	26	102.3	87.1	161.4	56.0	86.6	118.4	84.0	76.3	108.5	93.9	112.1	73.6	122.9	101.0	86.3	81.0
October	3	101.8	87.0	161.1	55.8	86.9	118.9	84.2	75.3	108.7	94.2	112.5	73.8	123.2	101.6	85.9	80.9
	10	101.5	87.1	160.4	56.3	87.3	119.4	84.4	74.2	109.0	94.5	112.9	73.8	123.2	102.2	85.9	80.9
	17	101.2	86.8	160.0	56.5	87.5	119.8	84.6	74.1	109.2	94.5	113.1	73.8	122.7	102.5	86.0	80.8
	24	102.1	86.9	157.8	56.9	87.4	119.6	84.5	74.3	109.1	94.4	113.0	73.3	122.2	102.4	86.0	80.8
	31	103.7	87.3	154.7	57.9	87.3	119.1	84.3	74.6	108.9	94.1	112.6	72.7	120.8	102.0	86.2	81.0
November	7	104.3	87.4	152.7	58.2	87.2	118.8	84.1	75.9	108.9	93.9	112.4	72.6	119.6	101.7	85.9	81.0
	14	103.1	87.4	153.9	58.0	87.3	119.4	84.4	75.2	109.1	94.2	112.9	72.7	120.7	102.1	85.1	80.8
Real against 15 other industrial-country currencies																	
1980		89.9	99.9	102.8	91.7	102.8	103.2	102.5	98.7	99.4	106.6	102.4	101.4	98.3	103.2	95.4	102.5
1981		100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982		109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983		112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984		119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985		122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986																	
May		101.5	94.0	120.4	84.1	102.4	102.3	101.6	91.9	105.6	84.2	101.3	94.1	102.9	106.8	95.3	96.3
June		102.1	93.3	120.2	80.1	102.8	102.1	101.8	91.5	105.8	84.1	100.5	93.7	104.8	107.0	95.4	96.0
July		99.7	93.5	125.2	72.3	103.0	103.6	103.0	89.3	106.1	83.7	99.3	95.6	107.9	106.6	95.6	95.7
August		98.1	93.1	127.3	69.8	102.7	104.8	104.6	85.9	106.9	84.6	101.3	95.8	109.5	108.8	92.7	95.2
September		97.5	93.6	126.8	71.1	102.4	105.3	105.0	84.5	107.0	84.6	102.5	95.7	109.6	108.9	95.2	94.9
October		98.3	92.9	123.8	73.6	102.9	106.0	106.1	81.3	107.5	84.8	104.1	95.8	109.9	110.9	94.5	94.4
Real against 18 other industrial-country and 22 LDC currencies																	
1980		90.5	98.9	101.3	92.3	103.6	104.5	103.7	99.5	100.0	107.5	103.9	102.2	99.3	103.6	95.8	103.0
1981		99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982		109.7	101.7	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.6	99.4	99.0	102.6	97.7	103.0	95.4
1983		114.9	104.5	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.3	105.1	100.3	101.9	91.0
1984		120.8	102.7	102.3	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.8	91.3	99.8	99.0	100.6	95.8
1985		124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.3	99.9	96.9
1986																	
May		107.1	95.1	125.2	95.9	102.8	103.0	102.8	92.4	106.1	84.5	100.9	96.4	104.2	107.2	96.0	96.9
June		107.4	94.4	124.9	81.9	103.2	102.8	103.0	92.0	106.4	84.4	100.2	96.0	106.2	107.4	96.2	96.7
July		105.5	94.5	129.7	74.2	103.6	104.5	104.3	89.9	107.0	84.1	99.1	98.0	109.6	107.1	96.4	96.4
August		104.2	93.9	131.7	72.0	103.5	106.2	106.3	86.9	107.9	85.2	101.4	98.6	111.6	109.3	93.6	95.9
September		103.7	94.3	131.5	73.4	103.3	106.7	106.8	85.6	108.2	85.4	102.8	98.5	111.8	109.5	96.1	95.7
October		104.3	93.8	128.6	75.7	103.8	107.5	108.0	82.4	108.7	85.6	104.5	98.8	112.4	111.4	95.2	95.2

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1980	115.2	83.8	94.4	93.5	102.6	92.1	90.1	99.5	88.4	97.8	95.0	92.1	97.2	101.6	92.1	99.4
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.3	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.3	97.6	113.9	96.1	101.7	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	85.9	100.2	96.9	96.5	119.7	107.9	102.4	97.0	119.5	91.1
1985	71.3	84.1	79.8	85.7	90.5	96.5	93.0	104.2	95.8	89.2	116.3	114.6	95.7	94.6	106.8	91.5
1986																
January	63.3	79.6	70.9	72.7	72.5	91.2	90.3	96.5	85.8	79.8	107.1	105.1	87.9	87.8	101.3	82.8
February	61.7	81.7	67.9	71.2	70.2	91.0	89.6	95.0	82.8	77.9	102.9	94.0	84.9	86.7	100.2	80.3
March	62.0	75.2	67.0	70.7	68.3	90.5	89.0	94.5	80.5	76.9	97.6	91.3	82.8	86.7	99.0	74.3
April	61.8	73.6	68.4	70.1	66.6	93.8	89.7	95.5	80.0	76.6	94.5	89.8	81.9	88.7	100.7	71.9
May	60.8	72.7	68.5	68.0	65.6	95.7	90.1	95.2	78.9	75.1	92.9	88.3	79.8	88.4	101.5	71.3
June	61.3	73.0	70.2	67.1	66.6	99.2	90.0	96.2	79.0	75.4	93.1	87.3	81.3	89.4	101.8	70.8
July	61.5	72.0	69.4	65.8	64.9	101.8	89.4	93.3	76.7	70.7	91.0	87.7	81.6	89.1	100.8	69.7
August	61.1	72.0	68.7	65.0	62.3	104.7	89.0	92.0	75.4	69.9	90.7	85.0	76.7	89.0	99.4	67.7
September	58.5	75.3	67.4	64.3	60.9	106.0	89.1	93.8	60.8	70.4	90.8	84.7	78.9	90.2	100.8	66.8

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984	1985			1986	
					Jun	Sep	Dec	Mar	Jun
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 459**	**2 622**	**2 833**	**2 947**	**3 040**
On nonbanks	557	634	665	694	735	761	822	854	875
On banks	1 372	1 512	1 588	1 665	1 724	1 861	2 011	2 093	2 165
In dollars	1 504	1 694	1 797	1 894	1 924	2 002	2 101	2 138	2 166
In other currencies	425	452	456	465	535	620	732	809	874
Domestic currencies, on nonresidents	**365**	**398**	**398**	**402**	**422**	**451**	**506**	**535**	**578**
On nonbanks	128	132	136	142	150	165	187	186	201
On banks	237	266	262	260	272	286	319	349	377
In dollars	188	211	217	215	209	205	215	203	210
In other currencies	177	187	181	187	213	246	291	332	368
Total	**2 294**	**2 544**	**2 651**	**2 761**	**2 881**	**3 073**	**3 339**	**3 482**	**3 618**
On nonbanks	685	766	801	836	885	926	1 009	1 040	1 076
On banks	1 609	1 778	850	1 925	1 996	2 147	2 330	2 442	2 542
In dollars	1 692	1 905	2 014	2 109	2 133	2 207	2 316	2 341	2 376
In other currencies	602	639	637	652	748	866	1 023	1 141	1 242
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 471**	**2 641**	**2 846**	**2 964**	**3 059**
To nonbanks	372	432	479	497	520	546	585	610	632
To official monetary institutions	112	91	88	96	106	109	112	106	109
To other banks	1 470	1 645	1 711	1 793	1 845	1 986	2 149	2 248	2 318
In dollars	1 539	1 741	1 846	1 950	1 969	2 045	2 147	2 166	2 204
In other currencies	415	427	432	436	502	596	699	798	855
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**310**	**341**	**377**	**394**	**418**
To nonbanks	74	70	73	80	89	103	114	121	121
To banks	189	180	187	200	221	238	263	273	297
In dollars	126	116	135	146	154	159	169	166	171
In other currencies	137	134	125	134	156	182	208	228	247
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 781**	**2 982**	**3 223**	**3 358**	**3 477**
To nonbanks	446	502	552	577	609	649	699	731	753
To banks and official institutions	1 771	1 916	1 986	2 089	2 172	2 333	2 529	2 627	2 724
In dollars	1 665	1 857	1 981	2 096	2 123	2 204	2 318	2 332	2 375
In other currencies	552	561	557	570	658	778	907	1 026	1 102
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 497**	**1 572**	**1 676**	**1 735**	**1 800**

International bond issues and bank credits

millions of dollars

	1983	1984	1985	1986			Jan-Sep	
				Jul	Aug	Sep	1986	1985
By country of borrower								
Industrial countries	**102 652**	**177 077**	**226 711**	**23 785**	**21 612**	**27 766**	**206 924**	**156 851**
Australia	5 737	5 816	14 407	448	1 117	2 257	13 230	8 523
Austria	1 290	2 254	2 435	177	193	584	3 083	1 930
Belgium	2 168	1 847	3 269	702	142	531	4 116	2 065
Canada	8 571	13 124	17 184	2 008	1 700	1 130	13 951	13 448
Denmark	3 941	4 825	3 589	597	1 788	1 096	5 699	2 808
Finland	1 271	1 713	1 846	264	403	339	2 363	1 176
France	8 626	11 298	18 773	3 092	1 722	1 444	13 244	14 728
Germany	3 197	2 165	3 452	1 378	913	1 083	9 020	2 061
Greece	1 291	1 551	1 588	140	98	50	952	1 588
Ireland	1 869	1 377	1 881	1 054	590	100	3 306	1 247
Italy	4 876	6 933	11 033	1 365	248	1 314	10 800	8 474
Japan	14 428	17 526	21 269	3789	2 428	2 913	24 924	16 189
Netherlands	1 213	1 973	2 299	285	310	395	2 682	1 681
New Zealand	802	3 208	2 707	500	909	455	5 138	1 823
Norway	1 969	1 324	3 905	789	1 301	356	4 560	3 003
Portugal	1 030	1 796	2 382	128	390	—	2 127	1 594
South Africa	1 300	1 422	825	—	—	—	—	825
Spain	4 977	4 931	3 913	1 271	50	1 237	5 441	3 496
Sweden	7 144	11 256	9 890	267	32	730	6 978	8 255
United Kingdom	2 726	8 899	25 424	1 679	2 932	6 759	23 549	17 167
United States	20 276	65 054	69 194	3 719	4 347	4 658	48 479	40 895
*Other**	3 950	6 785	5 447	135	—	338	3 280	3 865
Developing countries	**38 256**	**39 725**	**32 139**	**1 340**	**1 137**	**2 174**	**18 010**	**23 901**
Latin American countries	**15 592**	**17 464**	**8 115**	**152**	**146**	**291**	**2 086**	**5 609**
Argentina	1 750	4 212	3 700	—	—	—	17	3 700
Brazil	4 475	6 649	—	—	—	—	—	—
Chile	1 405	784	1 085	—	—	—	—	—
Colombia	552	589	1 052	50	39	—	89	52
Mexico	5 138	3 918	109	—	—	263	313	—
Venezuela	237	—	48	—	—	—	—	—
*Other***	2 035	1 312	2 121	102	107	28	1 667	1 857
Asian countries	**12 978**	**15 893**	**18 410**	**991**	**639**	**1 302**	**11 276**	**14 396**
India	968	945	818	34	85	130	949	476
Indonesia	2 363	1 924	451	25	—	—	1 008	451
Korea	4 387	6 201	5 898	327	50	70	2 537	4 707
Malaysia	2 197	2 605	2 220	310	—	543	1 305	1 713
Philippines	878	925	925	—	—	—	—	925
Thailand	747	1 221	1 497	—	—	—	1 016	1 101
Other	1 438	2 072	6 602	295	504	559	4 362	5 023
Middle Eastern and African countries	**9 686**	**6 368**	**5 614**	**197**	**352**	**580**	**4 647**	**3 895**
Algeria	1 993	821	1 450	147	52	—	996	1 300
Nigeria	2 343	985	—	—	—	—	—	—
Turkey	1 106	741	1 203	—	250	429	1 901	654
Other	4 244	3 821	2 960	50	50	152	1 751	1 942
Eastern European countries	**1 294**	**3 244**	**5 236**	**1 016**	**73**	**273**	**3 580**	**4 098**
Hungary	741	1 386	1 578	256	73	—	1 149	1 162
Soviet Union	93	1 051	1 489	50	—	223	1 521	1 191
*Other****	460	807	2 169	710	—	50	910	1 744
International organizations****	**16 201**	**13 287**	**20 635**	**2 074**	**833**	**1 770**	**13 811**	**15 721**
By type of instrument and currency								
International bond issues	**76 329**	**107 411**	**167 756**	**20 078**	**16 282**	**25 391**	**174 123**	**121 148**
Eurobonds	48 501	79 458	136 731	16 977	16 622	22 310	147 680	99 741
U.S. dollar	38 428	63 593	97 782	9 714	12 205	14 225	91 673	73 382
German mark	3 817	4 604	9 491	2 281	1 076	1 543	14 193	4 998
British pound	1 947	3 997	5 766	1 054	739	1 558	10 021	3 806
Japanese yen	212	1 212	6 539	2 079	991	3 178	14 066	4 353
European composite units	2 019	3 032	7 038	445	259	271	5 346	5 278
Other	2 078	3 020	10 114	1 406	1 352	1 535	12 381	7 925
Foreign bonds	27 828	27 953	31 025	3 101	1 660	3 081	26 443	21 407
U.S. dollar	4 545	5 487	4 655	150	—	250	3 064	3 441
German mark	2 671	2 243	1 741	—	—	—	—	1 373
British pound	811	1 292	958	—	—	—	322	674
Swiss franc	14 299	12 626	14 954	2 132	1 390	1 875	16 481	9 140
Japanese yen	3 772	4 628	6 379	160	111	351	3 713	5 050
Other	1 730	1 677	2 339	659	159	606	2 864	1 730
International bank credits	**82 074**	**125 922**	**116 964**	**8 137**	**5 373**	**6 591**	**68 202**	**79 422**
Eurocurrency credits	74 222	112 605	110 317	7 162	4 626	5 462	61 993	74 880
Foreign credits	7 852	13 317	6 648	975	747	1 129	6 210	4 542
Total	**158 403**	**233 333**	**284 720**	**28 215**	**23 654**	**31 982**	**242 326**	**200 571**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986						
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct
Eurodollar										
overnight	9.50	8.63	12.25	6.88	6.81	8.25	6.25	5.88	5.88	5.75
one month	9.69	8.38	8.00	6.81	7.00	6.88	6.38	5.69	6.00	5.81
three months	9.81	8.63	7.88	6.75	7.00	6.75	6.38	5.56	6.00	5.81
six months	10.06	9.13	7.88	6.75	7.06	6.75	6.38	5.56	6.00	5.81
twelve months	10.38	9.81	7.94	6.81	7.25	6.81	6.50	5.69	6.19	5.88
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.38	8.38	8.06	8.06	8.06	7.94	8.06
three months	9.50	10.81	9.00	8.69	8.44	8.38	8.31	8.13	8.19	8.31
six months	9.75	10.06	9.00	8.69	8.50	8.56	8.50	8.50	8.50	8.50
twelve months	10.00	10.44	9.00	8.69	8.75	8.75	8.75	8.63	8.75	8.69
Euro-French franc										
one month	12.13	10.69	12.50	7.75	7.31	7.25	7.13	7.13	7.38	7.38
three months	12.19	10.69	13.00	7.50	7.31	7.31	7.19	7.25	7.88	7.19
six months	12.31	11.00	13.13	7.50	7.31	7.31	7.25	7.31	7.75	7.88
twelve months	12.63	11.38	12.25	7.38	7.50	7.38	7.31	7.38	8.63	7.88
Euromark										
one month	5.25	5.50	4.75	4.56	4.56	4.44	4.63	4.44	4.50	4.44
three months	5.88	5.50	4.75	4.50	4.56	4.50	4.56	4.31	4.50	4.50
six months	6.13	5.56	4.75	4.44	4.63	4.56	4.56	4.31	4.56	4.56
twelve months	6.38	5.56	4.81	4.44	4.75	4.63	4.63	4.31	4.63	4.63
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.75	6.13	6.25	5.56	5.25	5.31	5.31
three months	6.00	5.75	5.75	5.50	5.81	6.06	5.44	5.13	5.25	5.31
six months	6.25	5.81	5.81	5.38	5.63	5.81	5.38	5.06	5.25	5.31
twelve months	6.38	5.94	5.88	5.31	5.63	5.75	5.38	5.06	5.25	5.31
Euro-Swiss franc										
one month	3.38	4.44	3.88	4.13	4.88	5.00	4.63	4.19	3.81	2.94
three months	3.75	4.56	4.00	4.13	4.69	5.06	4.63	4.13	4.06	3.75
six months	3.94	4.63	4.00	4.06	4.56	4.88	4.63	4.13	4.06	3.75
twelve months	3.94	4.69	4.06	3.94	4.44	4.75	4.63	4.13	4.06	3.81
Eurosterling										
one month	9.13	9.50	11.69	10.81	10.00	10.06	9.94	10.00	10.50	10.81
three months	9.31	9.88	11.81	10.38	9.81	9.81	9.94	9.81	10.19	11.13
six months	9.50	10.00	11.81	9.81	9.69	9.69	9.88	9.63	10.75	11.13
twelve months	9.81	10.19	11.69	9.50	9.44	9.63	9.94	9.56	10.81	11.06
Euroyen										
one month	6.25	6.19	7.13	4.94	4.75	4.69	4.75	5.13	4.94	4.25
three months	6.31	6.19	6.56	4.81	4.75	4.88	4.75	4.75	4.88	4.56
six months	6.38	6.13	6.50	4.69	4.81	4.63	4.69	4.63	4.88	4.56
twelve months	6.44	6.13	6.38	4.69	4.88	4.63	4.69	4.63	4.88	4.56
European currency unit										
one month	8.81	9.25	9.63	7.94	7.31	7.38	7.25	7.25	7.25	7.44
three months	9.19	9.38	9.63	7.56	7.31	7.31	7.19	7.06	7.25	7.56
six months	9.44	9.50	9.63	7.38	7.31	7.25	7.19	6.88	7.25	7.50
twelve months	9.63	9.63	9.63	7.19	7.13	7.25	7.13	6.88	7.25	7.50

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986							
	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States companies										
Eurodollar	11.25	9.68	8.78	8.93	9.27	9.00	8.97	8.60	9.04	8.76
Euromark	6.95	6.73	6.67	6.62	6.74	6.65	6.55	6.55	6.73	6.66
Swiss franc	5.73	5.49	5.63	5.65	5.62	5.63	5.56	5.63	5.65	5.67
European governments										
Eurodollar	12.04	10.52	9.98	9.86	10.18	10.00	9.97	9.73	9.92	9.85
Euromark	7.39	7.03	6.77	6.82	6.92	6.95	6.81	6.64	6.63	6.78
Swiss franc	5.24	4.91	4.71	4.69	4.69	4.76	4.73	4.66	4.61	4.57
European currency unit	10.64	10.23	10.35	10.18	10.20	10.31	10.02	10.17	10.23	10.49

Central bank discount rates

at or near end of month

	1983	1984	1985	1986					Current	
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov 13 1986	effective since
United States	8.50	8.00	7.50	6.50	6.00	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.84	8.51	8.58	8.60	8.55	8.59	Nov 6, 86
Austria	3.75	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Aug 19, 85
Belgium	10.00	11.00	9.75	8.00	8.00	8.00	8.00	8.00	8.00	May 29, 86
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Mar 7, 86
Ireland	12.25	14.00	10.25	10.00	10.00	10.00	10.00	13.25	13.25	Oct 24, 86
Italy	17.00	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	May 27, 86
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 30, 86
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	8.00	8.00	8.00	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Mar 18, 83
United Kingdom	9.00	9.38	11.31	9.81	9.81	9.81	9.81	10.81	10.81	Oct 15, 86
Japan	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.50	3.00	Nov 1, 86
New Zealand	7.50	13.50	19.80	16.00	16.60	16.60	15.70	16.50	17.40	Nov 13, 86
South Africa	18.50	21.75	13.50	11.50	11.50	11.00	10.50	10.50	10.50	Sep 5, 86
Argentina*	15.10	18.19	5.00	6.20	6.68	8.79	9.79	10.59	10.59	Oct 22, 86
Korea	5.00	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	10.04	n.a.	n.a.	n.a.	n.a.	n.a.	Jun, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	10.00	9.00	9.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.47	8.38	8.27	7.48	6.98	6.85	6.91	6.55	6.16	5.92	5.84
Canada	8.78	10.50	9.23	11.10	9.58	8.41	8.19	8.38	8.10	8.10	8.38
Austria	5.75	7.63	7.25	5.00	4.75	4.88	4.88	5.13	5.13	5.50	n.a.
Belgium	7.39	9.12	6.60	7.20	8.67	6.44	5.18	6.34	6.37	5.76	6.36
Finland	16.70	15.07	11.96	11.21	11.20	12.02	10.83	10.80	24.17	13.86	11.93
France	12.27	10.95	9.01	8.52	8.18	7.38	7.22	7.28	7.05	7.08	7.31
Germany	5.61	5.62	4.64	4.90	4.76	4.30	4.39	4.61	4.51	4.38	4.38
Ireland	12.19	14.50	9.62	14.75	12.63	10.50	9.50	9.63	9.75	9.63	n.a.
Italy	17.88	17.25	14.75	17.15	15.02	13.06	12.34	12.11	11.78	11.25	10.98
Netherlands	5.84	5.60	5.75	5.72	5.49	6.69	6.06	6.13	5.56	5.31	5.38
Norway	12.30	12.50	12.40	13.20	13.50	17.00	14.00	14.00	14.00	14.00	14.00
Spain	16.98	12.18	9.92	11.25	12.20	12.04	12.03	12.26	12.34	11.58	11.68
Sweden	11.52	11.88	11.83	10.83	11.65	11.30	9.88	9.56	9.52	8.92	n.a.
Switzerland	1.88	1.50	2.00	2.25	2.25	2.00	1.75	2.25	2.00	2.00	1.00
United Kingdom	7.78	6.31	9.72	12.09	8.96	8.55	10.53	8.98	8.70	8.06	11.19
Australia	4.55	10.98	18.37	16.74	15.06	12.31	13.20	13.43	16.42	17.22	17.13
Japan	6.44	6.41	8.02	5.53	4.70	4.21	4.39	4.50	4.55	4.60	4.37
South Africa	16.06	21.13	12.50	11.75	12.00	10.63	10.69	10.75	9.81	9.63	9.63
Argentina*	14.65	17.75	4.50	4.50	4.50	4.50	5.00	5.00	7.00	6.00	7.00
Brazil	184.69	272.02	352.23	15.12	16.64	15.50	18.30	25.93	35.60	45.58	n.a.
Hong Kong	13.90	6.80	6.10	6.48	7.81	6.02	6.91	5.95	5.64	4.93	3.21
Korea	11.40	10.00	8.80	9.70	11.00	10.30	10.00	10.60	9.30	9.50	9.30
Philippines	31.18	15.22	15.03	17.83	15.62	12.43	11.61	10.16	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	4.85	4.82	5.07	4.49	3.73	3.95	2.26	2.47
Taiwan	7.65	8.07	4.50	3.54	3.75	3.50	4.53	3.50	3.50	3.50	3.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.28	7.99	7.25	6.50	6.24	6.45	6.13	5.93	5.23	5.30	5.25
Canada	9.71	9.84	9.24	10.19	9.02	8.33	8.59	8.26	8.33	8.35	8.30
Belgium	11.00	10.90	9.89	9.89	8.36	7.71	7.45	7.45	7.45	7.45	7.48
Ireland	12.01	15.10	11.15	12.08	9.69	8.76	9.16	10.13	10.65	10.61	n.a.
Italy	16.29	14.19	12.70	12.74	12.03	10.93	10.50	10.44	10.39	9.71	9.87
Netherlands	5.63	5.88	5.69	5.56	6.88	6.50	5.88	5.75	4.75	5.63	5.38
Spain	14.46	12.00	9.25	9.25	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	10.63	10.19	9.90	9.85	9.29	9.25	8.66	n.a.
United Kingdom	9.04	9.33	11.49	11.04	10.09	9.56	9.52	9.76	9.56	9.93	10.85
Australia	8.54	12.27	19.40	14.88	12.84	12.78	12.38	14.98	17.20	17.51	16.18
Japan	4.91	4.91	4.91	3.90	3.39	3.39	3.39	3.39	3.39	3.39	3.39
New Zealand	7.80	13.50	17.62	21.64	20.41	17.34	15.64	16.75	n.a.	n.a.	n.a.
South Africa	18.43	21.94	12.99	11.97	11.58	11.02	10.75	10.22	9.71	9.20	9.17
Brazil	179.15	273.03	379.77	15.40	16.79	15.90	18.60	26.30	36.00	42.00	45.00
Mexico	53.78	48.67	72.98	78.78	80.84	80.74	88.50	n.t.	n.t.	n.t.	n.a.
Philippines	15.99	47.14	16.45	23.56	19.65	15.79	14.67	14.59	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.64	2.58	2.35	2.42	2.54	2.15	2.01	1.99

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.89	8.34	8.01	7.34	7.17	6.69	6.80	6.39	5.65	5.96	5.81
Canada	9.87	10.10	9.45	10.80	8.85	8.65	8.65	8.55	8.35	8.50	8.45
Belgium	11.15	10.85	9.89	8.52	8.11	7.71	7.40	7.40	7.40	7.35	7.35
France	12.19	10.69	9.12	8.37	7.50	7.24	7.24	7.25	7.13	7.43	7.50
Germany	6.30	5.75	4.80	4.65	4.60	4.60	4.55	4.65	4.30	4.40	4.60
Ireland	12.19	15.13	12.00	14.63	10.75	10.25	9.25	10.75	10.63	11.25	n.a.
Italy	17.88	16.88	15.13	15.00	12.75	12.13	12.25	11.38	11.00	n.a.	n.a.
Netherlands	6.00	5.75	5.75	5.50	5.56	6.00	5.19	5.56	5.25	5.44	5.44
Portugal	24.11	24.57	20.71	18.75	17.76	17.07	n.a.	n.a.	n.a.	n.a	n.a.
Spain	19.00	12.21	10.51	11.59	12.27	11.63	12.06	12.51	12.18	11.53	11.41
Switzerland	3.88	5.00	4.75	4.06	4.50	4.69	5.50	4.88	4.25	4.25	4.19
United Kingdom	9.31	9.88	12.75	11.06	10.13	9.69	9.75	9.88	9.63	10.38	11.13
Australia	9.05	12.90	19.75	16.20	16.10	14.85	14.80	15.10	17.70	17.85	16.45
Japan	6.45	6.33	7.03	5.16	4.53	4.66	4.64	4.65	4.53	4.75	4.54
New Zealand	11.75	15.00	20.00	22.30	21.30	16.10	17.10	16.80	16.30	16.50	16.50
South Africa	19.12	22.78	13.35	12.35	11.95	11.25	10.80	10.55	9.35	9.55	9.65
Chile	20.68	20.68	22.42	14.00	16.56	12.68	14.00	15.39	11.35	12.68	20.98
Hong Kong	14.88	8.25	6.50	7.25	7.81	6.02	6.75	6.31	5.00	5.25	4.38
Indonesia	19.50	19.00	15.00	20.25	16.50	16.00	15.00	15.00	14.00	14.50	14.25
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	8.75	15.00	9.80	10.00	9.80	11.75	12.00	9.50
Philippines	15.61	33.21	14.61	26.45	19.32	14.57	12.28	12.47	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	5.00	4.94	5.06	4.88	4.31	3.94	3.25	2.94
Taiwan	8.07	7.85	4.10	3.37	3.99	3.58	3.68	3.27	2.81	2.65	2.65
Thailand	16.00	12.00	15.50	10.00	10.00	9.50	8.50	8.00	8.00	7.50	7.50

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.70	8.35	7.75	7.16	6.55	6.82	6.65	6.33	5.47	5.80	5.75
Canada	9.82	10.05	9.40	10.75	8.80	8.60	8.60	8.50	8.30	8.45	8.45
Austria	6.50	7.50	6.50	5.50	4.88	5.19	5.13	5.13	5.13	5.75	n.a.
Belgium	11.25	10.63	9.63	9.63	8.13	7.31	7.19	7.25	7.19	7.25	7.31
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	3.75	3.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	5.88	5.72	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.15	4.35	4.35	4.35	4.45	4.45	4.40	4.50
Ireland	11.75	14.63	11.87	14.50	10.75	10.00	10.00	10.00	10.00	10.50	12.00
Italy	13.25	11.64	11.85	11.75	n.a.	n.a.	n.a.	n.a.	n.a	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.38	5.44	5.88	6.06	5.44	5.19	5.31	5.31
Norway	12.75	12.75	12.00	12.25	12.25	12.25	13.00	13.00	13.00	13.00	13.00
Portugal	21.50	28.00	20.00	20.00	18.50	18.50	15.50	15.50	15.50	15.50	n.a.
Spain	12.62	11.64	9.64	9.11	9.42	9.20	9.04	8.89	8.89	8.78	n.a.
Sweden	11.79	11.45	12.18	11.00	10.65	10.60	10.10	9.80	9.70	9.27	n.a.
Switzerland	3.50	4.50	4.50	3.81	4.25	4.44	5.25	4.63	4.00	4.00	3.94
United Kingdom	9.31	9.88	11.75	11.06	10.13	9.69	9.63	9.88	9.63	10.37	11.13
Australia	10.40	12.75	18.80	16.13	14.68	14.21	14.00	14.46	16.68	17.82	16.71
Japan	6.40	6.38	7.05	5.32	4.80	4.90	4.65	4.70	4.80	4.95	4.63
New Zealand	11.75	15.25	19.98	20.56	20.16	16.42	15.10	16.47	16.57	15.50	16.60
South Africa	20.13	22.88	13.20	12.60	12.00	11.40	11.00	10.80	9.75	9.50	9.75
Argentina*	14.50	31.23	5.40	4.50	4.34	4.25	4.28	4.48	6.18	6.94	7.65
Brazil	23.00	27.00	18.00	21.00	21.50	26.00	29.00	30.00	42.00	44.00	49.00
Chile	20.57	20.68	23.60	16.30	19.98	13.62	15.94	16.49	13.62	16.49	20.70
Hong Kong	14.88	8.25	6.50	7.25	7.81	6.02	6.75	6.31	5.00	5.25	4.38
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Mexico	57.15	47.45	72.90	79.55	80.20	80.00	85.50	87.50	87.50	94.30	n.a.
Philippines	14.96	31.01	12.34	14.17	12.37	14.63	11.56	10.12	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	4.94	4.76	4.94	4.82	4.26	3.88	3.19	2.88
Taiwan	7.00	6.50	5.25	4.75	4.50	4.50	4.50	4.50	4.25	4.50	4.00
Thailand	10.00	13.00	10.50	10.50	8.50	8.50	8.50	7.50	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	9.00	9.00	9.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	12.00	11.61	9.49	7.50	7.70	8.37	7.79	7.88	7.51	7.95	7.81
Canada	12.02	11.66	10.04	9.54	9.32	9.52	9.42	9.36	9.16	9.44	9.53
Austria	8.02	8.04	7.61	7.63	9.00	7.14	7.19	7.20	7.11	7.06	n.a.
Belgium	11.89	11.56	9.60	8.41	7.46	7.93	7.86	7.47	7.24	7.36	n.a.
Denmark	12.96	14.60	9.67	9.26	8.63	10.17	10.17	10.64	11.24	11.11	11.16
Finland	11.16	10.73	10.58	8.77	8.89	8.27	8.27	8.25	8.15	7.75	7.90
France	13.96	12.70	11.33	9.19	8.53	8.58	8.65	8.55	8.05	8.51	n.a.
Germany	8.38	7.17	6.57	6.21	5.78	6.31	6.17	6.07	5.95	6.26	6.44
Ireland	14.25	14.90	11.84	9.35	8.57	9.17	9.31	10.33	n.a.	12.46	n.a.
Italy	17.69	14.52	13.66	13.35	12.27	10.87	10.83	11.06	10.81	n.a.	n.a.
Netherlands	8.58	7.72	6.96	6.44	6.15	6.39	6.38	6.22	6.03	6.04	6.22
Norway	12.50	12.00	13.10	12.80	12.80	12.80	13.10	13.42	13.40	13.40	13.40
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	12.22	12.06	11.35	10.98	11.52	11.52	11.10	10.15
Sweden	12.30	12.04	12.11	10.81	9.81	10.06	9.79	9.76	9.63	9.49	n.a.
Switzerland	4.53	4.60	4.42	4.16	4.24	4.39	4.43	4.39	4.26	4.26	4.19
United Kingdom	9.94	10.25	10.35	8.75	8.73	9.11	9.32	9.45	9.31	10.31	10.40
Australia	13.65	13.50	14.85	12.60	12.25	12.65	12.95	14.02	14.10	13.85	13.46
Japan	7.45	6.47	5.92	4.67	4.79	5.57	4.90	4.83	4.57	4.65	4.95
New Zealand	10.50	16.90	17.00	18.90	16.80	15.50	15.40	16.20	15.90	15.35	15.20
South Africa	13.64	16.55	18.09	17.65	17.40	17.09	16.99	16.00	14.03	15.24	15.83
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	11.00	10.75	9.50	9.00	8.50	8.50	8.50	8.00	7.50	7.50	7.50
Canada	11.00	11.25	10.00	12.00	11.25	10.25	10.25	9.75	9.75	9.75	9.75
Austria	9.25	9.25	9.00	9.25	9.25	9.25	9.00	9.00	9.00	9.00	n.a.
Belgium	13.75	14.00	11.50	11.50	10.50	10.50	9.75	9.75	9.75	9.75	9.75
Denmark	10.00	10.50	8.50	7.50	7.50	7.50	7.50	7.50	8.00	8.00	8.00
Finland	10.18	10.68	10.37	9.49	9.49	8.78	8.82	8.76	8.79	8.77	n.a.
France	12.25	12.00	10.60	10.60	10.10	9.60	9.60	9.60	9.60	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Ireland	13.75	15.75	12.50	17.50	14.50	13.50	12.25	12.25	12.25	12.25	13.75
Italy	18.75	18.00	15.88	16.00	15.25	14.50	13.50	13.50	13.50	13.00	13.00
Netherlands	7.00	6.25	6.25	6.00	6.00	7.00	6.75	6.50	5.88	5.88	5.88
Norway	13.50	13.00	12.40	13.75	13.75	14.75	15.50	15.25	15.25	15.75	15.88
Portugal	30.00	29.00	22.50	22.50	21.00	21.00	18.00	18.00	18.00	18.00	n.a.
Spain	17.31	15.84	14.75	14.58	14.52	14.50	14.44	14.37	14.36	14.29	14.25
Sweden	13.50	14.50	15.05	13.00	12.75	12.75	12.75	12.75	12.75	11.50	n.a.
Switzerland	6.00	6.00	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.75
United Kingdom	9.00	9.50	11.50	11.50	10.50	10.00	10.00	10.00	10.00	10.00	11.00
Australia	12.75	14.00	21.00	19.75	19.00	18.25	18.00	17.25	18.50	19.00	18.75
Japan	5.89	5.70	5.71	5.42	5.18	4.95	4.71	4.57	5.24	5.24	n.a.
New Zealand	11.00	14.00	21.00	21.00	22.00	21.00	18.00	17.00	16.50	17.00	17.00
South Africa	20.00	24.00	16.50	15.50	15.50	14.50	14.50	14.50	14.00	13.50	13.50
Argentina*	15.50	32.05	7.30	5.25	4.80	5.52	5.35	5.57	7.70	8.62	8.70
Brazil	24.00	31.00	19.00	21.00	22.50	26.00	29.00	32.00	44.00	46.00	51.00
Chile	30.90	60.82	33.34	31.76	31.99	30.60	29.38	28.77	26.38	23.51	27.20
Hong Kong	13.50	11.00	7.00	8.00	8.00	7.50	7.50	7.50	6.50	6.50	6.50
Indonesia	19.75	23.50	18.75	20.00	19.50	19.00	19.00	18.75	18.75	18.75	18.25
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Mexico	56.44	47.54	65.66	71.79	73.48	75.02	76.97	81.36	84.40	87.72	n.a.
Philippines	18.00	44.00	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	7.18	7.15	7.15	7.15	7.05	6.83	6.45	6.28
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	14.00	14.00	14.00	14.00	12.75	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	13.00	13.00	13.00	14.00	14.00	14.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	12.63	12.25	10.15	8.63	9.00	9.20	9.00	9.25	8.63	9.00	9.00
Canada	12.89	12.42	10.74	12.46	12.24	10.35	10.10	10.19	10.00	10.32	10.39
France	14.35	12.94	11.76	10.13	9.82	9.44	9.85	9.12	8.37	8.92	n.a.
Germany	8.30	7.20	6.90	6.70	6.60	6.40	6.50	6.60	6.40	6.30	6.40
Netherlands	8.51	7.51	n.t.	6.53	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.00	14.00	14.00	14.25	14.90	15.00	15.50	15.50
Spain	20.07	18.32	14.92	14.40	13.91	13.99	13.71	13.22	13.68	13.38	13.24
Sweden	12.21	12.33	13.25	11.99	10.93	11.20	11.04	10.88	10.99	10.82	n.a.
Switzerland	4.92	5.09	4.93	4.64	4.96	4.77	4.83	4.84	4.77	4.77	4.73
United Kingdom	11.57	11.64	11.47	9.96	9.80	10.05	10.32	10.49	10.32	10.31	10.40
Japan	7.09	6.21	6.90	5.40	5.14	5.20	5.14	4.74	5.14	n.a.	n.a.
Korea	14.20	15.00	13.60	12.40	12.40	12.80	12.80	12.90	12.80	12.80	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

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